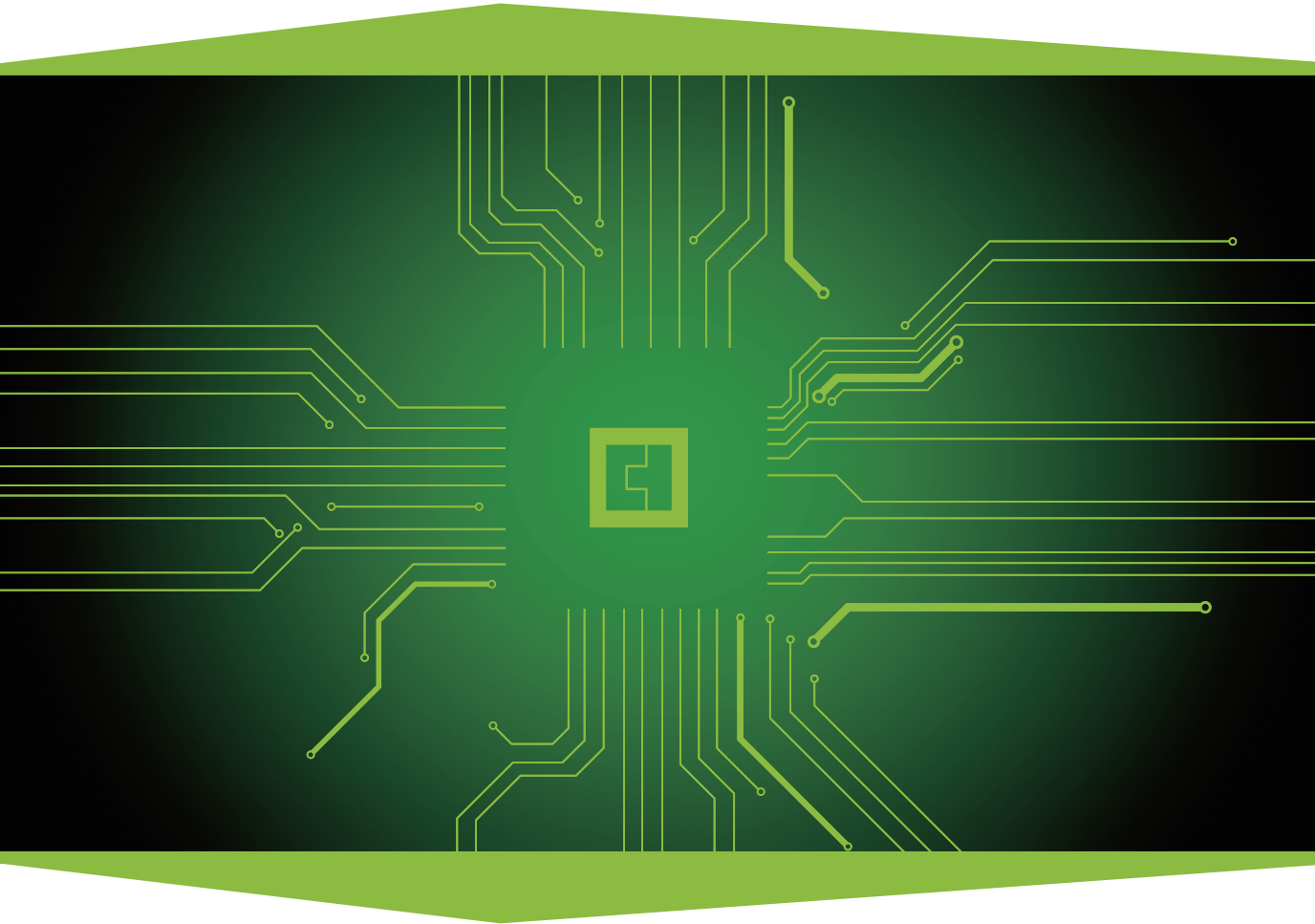


# CATALOGUE

[www.ct-micro.com](http://www.ct-micro.com)



 **CT Micro**  
International Corporation



**CT Micro** International Corporation is a **C**ustomer Oriented and **T**echnology Driven Company.

**CT Micro** was formed with focus on delivering cutting edge technology and built that right into our products and solutions which can then be implemented by the most demanding applications from our global customers.

**CT Micro** is managed by a team of highly skilled and technically sound professionals who is dedicated in Design, Manufacturing, Marketing and Sales (DM<sup>2</sup>S) of Optoelectronics and Discrete MOSFET products. All top management and technical team members have more than 15 years of products knowledge and thus can help realize any design right from component selection up to actual finished product implementation with minimum effort and time. Among some of the end market applications segment served are Consumer Electronics, Industrial & Home Appliances.

Knowing that any best applications and products require matching top notch quality components, **CT Micro** implements stringent design requirements on all of our new products as well as world class quality control during our manufacturing process. To us, creating a reliable and efficient products is just a way we show our responsibility to our clients, society and the world.

---

[www.ct-micro.com](http://www.ct-micro.com)

---



# CONTENTS

## 04 INFRARED COMPONENT

- 04 SMD: Emitter
- 07 PLCC Type
- 08 MID: Emitter
- 08 VCSEL
- 08 SMD: Light Sensor: Photo Transistor
- 09 SMD: Photo Transistor
- 10 SMD: Photo Diode
- 10 SMD: Photo Interrupt
- 11 Package Outline Drawing

## 14 PHOTO COUPLER

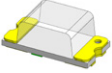
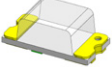
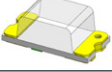
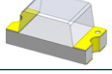
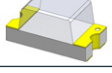
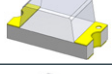
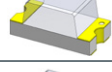
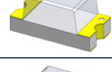
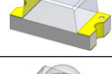
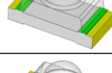
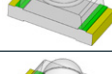
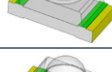
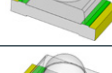
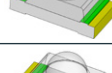


- 14 Transistor
- 16 High Speed Analog
- 17 High Voltage Transistor
- 18 Darlington
- 18 High Voltage Darlington
- 19 High Speed Digital
- 20 Photo Triac : Zero Cross
- 21 Photo Power Triac
- 22 Photo Triac : Random Phase
- 23 IGBT Gate Driver
- 24 Schmitt Trigger
- 24 Solid State Relay
- 25 Package Outline Drawing

## 29 MOSFET

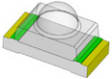
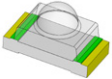
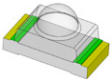
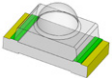
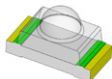
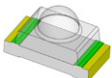
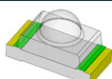
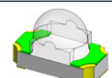
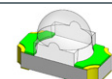
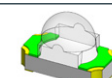

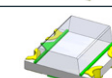

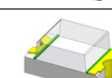
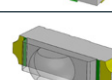
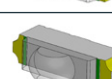
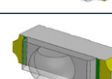
- |           |                            |           |                                 |
|-----------|----------------------------|-----------|---------------------------------|
| <b>30</b> | High Voltage MOSFET        | <b>40</b> | SOT-26 Dual P Channel           |
| <b>31</b> | TO-252 N Channel           | <b>41</b> | SOT-26 N+P Channel              |
| <b>32</b> | TO-252 P Channel           | <b>42</b> | SOT-523 N Channel               |
| <b>32</b> | TSSOP-8 Dual N Channel     | <b>42</b> | SOT-523 P Channel               |
| <b>33</b> | SOP-8 N Channel            | <b>42</b> | SOT-723 N Channel               |
| <b>34</b> | SOP-8 Dual N Channel       | <b>42</b> | SOT-723 P Channel               |
| <b>35</b> | SOP-8 P Channel            | <b>43</b> | PDFN5060 N Channel              |
| <b>36</b> | SOP-8 Dual P Channel       | <b>43</b> | PDFN5060 P Channel              |
| <b>36</b> | SOP-8 N+P Channel          | <b>44</b> | DFN2030 Common Drain N-Type     |
| <b>37</b> | SOT-23 N Channel           | <b>44</b> | DFN3030 Common Drain N-Type (A) |
| <b>38</b> | SOT-23 P Channel           | <b>44</b> | DFN3030 Common Drain N-Type (B) |
| <b>39</b> | SOT-26 N Channel           | <b>45</b> | PDFN3030 N Channel              |
| <b>39</b> | SOT-26 Dual N Channel      | <b>45</b> | PDFN3030 P Channel              |
| <b>39</b> | SOT-26 Common Drain N-Type | <b>46</b> | Package Outline Drawing         |
| <b>40</b> | SOT-26 P Channel           |           |                                 |



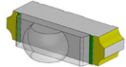
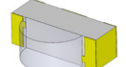
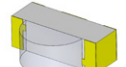
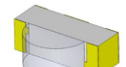
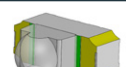
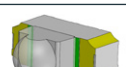
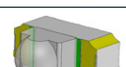
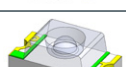
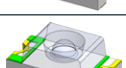

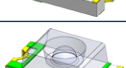
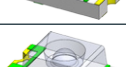
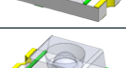

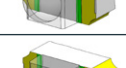
SMD | Emitter

Part Number	Package (mm)	Wavelength (nm)	Intensity@20mA (mW/sr) Typ.	V <sub>F</sub> @20mA (V)	Viewing Angle (°)	Max Rating (mA)
<b>HIRP1608Q06-B30</b> 	1608-06	850	1.8	1.4	130	70
<b>IRP1608N06-B50</b> 	1608-06	940	0.8	1.2	150	70
<b>IRP1608Q06-B30</b> 	1608-06	940	2.1	1.38	130	70
<b>GP1608X08-B30</b> 	1608-08	520	1100mcd	2.75	130	20
<b>RP1608X08-B30</b> 	1608-08	630	500mcd	2	130	50
<b>HIRP1608Q08-B30</b> 	1608-08	850	2	1.4	130	70
<b>HIRP1608XS08-B30</b> 	1608-08	850	3	2.9	130	50
<b>IRP1608T08-B50</b> 	1608-08	940	0.8	1.2	150	70
<b>IRP1608X08-B30</b> 	1608-08	940	2.1	1.31	130	70
<b>GP1608X09-H5</b> 	1608-09	520	4000mcd	2.75	75	20
<b>YP1608X09-G0</b> 	1608-09	592	1800mcd	2.3	60	20
<b>RP1608X09-H5</b> 	1608-09	630	1650mcd	2	75	50
<b>RP1608W09-H5</b> 	1608-09	660	8.5	2	75	50
<b>FIRP1608X09-H5</b> 	1608-09	750	2.8	1.75	75	50
<b>HIRP1608XC09-H5</b> 	1608-09	800	4.7	1.45	75	70
<b>HIRP1608Q09-G0</b> 	1608-09	850	7.5	1.45	60	70

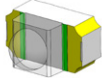
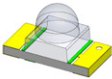
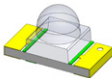
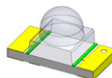
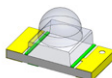
## INFRARED COMPONENT

Part Number		Package (mm)	Wavelength (nm)	Intensity@20mA (mW/sr) Typ.	V <sub>F</sub> @20mA (V)	Viewing Angle (°)	Max Rating (mA)
HIRP1608Q09-H5		1608-09	850	5.8	1.4	75	70
SIRP1608X09-H5		1608-09	880	5.4	1.35	75	70
IRP1608XA09-H5		1608-09	915	4.5	1.3	75	70
IRP1608Q09-G0		1608-09	940	7.5	1.38	60	70
IRP1608Q09-H5		1608-09	940	5.8	1.31	75	70
IRP1608XB09-H5		1608-09	970	4.5	1.3	75	70
HIRP1608W11-B10		1608-11	850	4.5	1.4	110/75	70
HIRP1608XS11-B00		1608-11	850	8.5	2.9	100/70	70
IRP1608W11-B00		1608-11	940	5	1.3	100/70	70
SRP1615X07-B20		1615-07	880 620	2.4 730mcd	1.4 2.2	120	70@880nm 50@620nm
GIRP1615X07-B20		1615-07	520 940	1100mcd 2.0	2.7 1.27	120	20@520nm 70@940nm
GP1708Q06-B30		1708-06	525	1400mcd	2.7	130	20
HIRP2013X10-B40		2013-10	850	2.2	1.4	140	70
HIRP2406W14-B10		2406-14	850	4	1.49	110/50	70
IRP2406T14-B50		2406-14	940	1.6	1.22	150/105	70
IRP2406W14-B10		2406-14	940	4.2	1.33	110/55	70





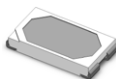
SMD | Emitter

Part Number	Package (mm)	Wavelength (nm)	Intensity@20mA (mW/sr) Typ.	V <sub>F</sub> @20mA (V)	Viewing Angle (°)	Max Rating (mA)
NIRP2406U14-B20 	2406-14	1050	1.5	1.15	120/105	70
HIRP3010Q20-B30 	3010-20	850	2.1	1.4	130/130	70
IRP3010M20-B60 	3010-20	940	0.85	1.2	160/150	70
NIRP3010U20-B60 	3010-20	1050	0.85	1.15	160/150	70
HIRP3012W24-E5 	3012-24	850	11	1.47	45	70
IRP3012W24-F2 	3012-24	940	7	1.33	52	70
IRP3012Q24-E5 	3012-24	940	10	1.28	45	70
BP3015Q12-B10 	3015-12	465	90mcd @ I <sub>F</sub> =5mA	2.65 @ I <sub>F</sub> =5mA	110	20
HIRP3015Q12-J5 	3015-12	850	4	1.4	85	70
HIRP3015Q12-K6 	3015-12	850	3	1.4	96	70
SIRP3015X12-J5 	3015-12	880	5	1.35	85	70
IRP3015W12-J5 	3015-12	940	5.6	1.25	85	70
DIRP3015X12C-B50 	3015-12	940	3.7 @ I <sub>F</sub> =40mA	1.25 @ I <sub>F</sub> =40mA	150	80
IRP3016X24-F0 	3016-24	940	10	1.3	50	70
IRP3016W24-G0 	3016-24	940	6.4	1.3	60	70

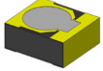
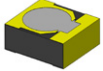


Part Number		Package (mm)	Wavelength (nm)	Intensity@20mA (mW/sr) Typ.	V <sub>F</sub> @20mA (V)	Viewing Angle (°)	Max Rating (mA)
NIRP3016T24-G0		3016-24	1350	0.8	0.79	60	70
FIRP3216X18-D0		3216-18	755	18	1.75	30	50
HIRP3216Q18-C0		3216-18	850	20	1.4	20	70
HIRP3216XS18-D0		3216-18	850	32	2.9	30	50
IRP3216N18-D0		3216-18	940	5.2	1.2	30	70

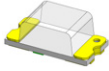
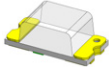
### PLCC Type

Part Number		Package (mm)	Wavelength (nm)	Intensity@20mA (mW/sr) Typ.	V <sub>F</sub> @20mA (V)	Viewing Angle (°)	Max Rating (mA)
HIRC3020Q13-B20		3020-13	850	3	1.4	120	70
IRC3020N13-B20		3020-13	940	1.8	1.2	120	70
IRC3528Q19-B20		3528-19	940	1.8	1.2	120	70
HIRC3528Q19-B20		3528-19	850	3.5	1.4	120	70
FIRC5730W09-B20		5730-09	730	5	2	120	150

**MID | Emitter**

Part Number	Package (mm)	Wavelength (nm)	Intensity@70mA (mW/sr) Typ.	V <sub>F</sub> @70mA (V)	Viewing Angle (°)	Max Rating (mA)
<b>HIRM2219T09-E0</b> 	2219-09	850	40	1.6	40	70
<b>IRM2219V09-E0</b> 	2219-09	940	30	1.4	40	70

**VCSEL**

Part Number	Package (mm)	Wavelength (nm)	Intensity (mW/sr) Typ.	V <sub>F</sub> (V)	Viewing Angle (°)	Max Rating (mA)
<b>HIRP1608QA06-B5</b> 	1608-06	850	170@I <sub>F</sub> =70mA	2.0@I <sub>F</sub> =70mA	15	70
<b>HIRP1608QB06-B6</b> 	1608-06	850	45@I <sub>F</sub> =20mA	2.1@I <sub>F</sub> =20mA	16	20
<b>IRP1608QC06-B5</b> 	1608-06	940	220@I <sub>F</sub> =70mA	1.85@I <sub>F</sub> =70mA	15	70

**SMD | Light Sensor | Photo Transistor**

Part Number	Package (mm)	Wavelength (nm)	Light Current (mA) Min.	Test Condition
<b>APTP1708T06</b> 	1708-06	630	50uA	V <sub>CE</sub> =5V, E <sub>V</sub> =1000Lux

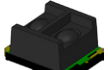
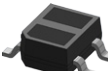
SMD | Photo Transistor

Part Number	Package (mm)	Wavelength (nm)	Light Current (mA) Min.	Test Condition
PTP81608BT06	 1608-06	880	0.3	$E_e=1\text{mW}/\text{cm}^2$ , $\lambda_p=940\text{nm}$ , $V_{CE}=5\text{V}$
PTP81608T08	 1608-08	820	0.3	$E_e=1\text{mW}/\text{cm}^2$ , $\lambda_p=940\text{nm}$ , $V_{CE}=5\text{V}$
PTP81608BT09	 1608-09	880	0.9	$E_e=1\text{mW}/\text{cm}^2$ , $\lambda_p=940\text{nm}$ , $V_{CE}=5\text{V}$
PTP81708T06	 1708-06	820	0.3	$E_e=1\text{mW}/\text{cm}^2$ , $\lambda_p=940\text{nm}$ , $V_{CE}=5\text{V}$
APTP1708T06	 1708-06	630	50uA	$V_{CE}=5\text{V}$ , $E_v=1000\text{Lux}$
PTP82406BT14	 2406-14	880	0.5	$E_e=1\text{mW}/\text{cm}^2$ , $\lambda_p=940\text{nm}$ , $V_{CE}=5\text{V}$
PTP73010T20	 3010-20	750	0.9	$E_e=1\text{mW}/\text{cm}^2$ , $\lambda_p=940\text{nm}$ , $V_{CE}=5\text{V}$
PTP83010BT20	 3010-20	820	0.8	$E_e=1\text{mW}/\text{cm}^2$ , $\lambda_p=940\text{nm}$ , $V_{CE}=5\text{V}$
PTP83012BT24	 3012-24	880	1.4	$E_e=1\text{mW}/\text{cm}^2$ , $\lambda_p=940\text{nm}$ , $V_{CE}=5\text{V}$
PTP83015BT12	 3015-12	880	0.5	$E_e=1\text{mW}/\text{cm}^2$ , $\lambda_p=940\text{nm}$ , $V_{CE}=5\text{V}$
PTP83016BT24	 3016-24	880	1.4	$E_e=1\text{mW}/\text{cm}^2$ , $\lambda_p=940\text{nm}$ , $V_{CE}=5\text{V}$
PTP83216BT18	 3216-18	880	1.4	$E_e=1\text{mW}/\text{cm}^2$ , $\lambda_p=940\text{nm}$ , $V_{CE}=5\text{V}$
PTC93528T19	 3528-19	940	1.4	$E_e=1\text{mW}/\text{cm}^2$ , $\lambda_p=940\text{nm}$ , $V_{CE}=5\text{V}$

**SMD | Photo Diode**

Part Number	Package (mm)	Wavelength (nm)	Light Current (μA) Typ.	Test Condition
PDP91608BT08 	1608-08	900	1.15	Ee=1mW/cm <sup>2</sup> , λ <sub>p</sub> =940nm, V <sub>R</sub> =5V
PDP91608BT09 	1608-09	900	1.15	Ee=1mW/cm <sup>2</sup> , λ <sub>p</sub> =940nm, V <sub>R</sub> =5V
PDP91608BT11 	1608-11	900	1.83	Ee=1mW/cm <sup>2</sup> , λ <sub>p</sub> =940nm, V <sub>R</sub> =5V
PDP91708BT06 	1708-06	900	1.15	Ee=1mW/cm <sup>2</sup> , λ <sub>p</sub> =940nm, V <sub>R</sub> =5V
PDP92406BT14 	2406-14	900	1.47	Ee=1mW/cm <sup>2</sup> , λ <sub>p</sub> =940nm, V <sub>R</sub> =5V
PDP93010BP20 	3010-20	900	1.9	Ee=1mW/cm <sup>2</sup> , λ <sub>p</sub> =940nm, V <sub>R</sub> =5V
PDP93015BT12 	3015-12	900	1.3	Ee=1mW/cm <sup>2</sup> , λ <sub>p</sub> =940nm, V <sub>R</sub> =5V
PDP93016BP24 	3016-24	900	2.82	Ee=1mW/cm <sup>2</sup> , λ <sub>p</sub> =940nm, V <sub>R</sub> =5V
PDP93328T11 	3328-11	940	9.6	Ee=1mW/cm <sup>2</sup> , λ <sub>p</sub> =940nm, V <sub>R</sub> =5V
PDP93328BTA11 	3328-11	940	9.6	Ee=1mW/cm <sup>2</sup> , λ <sub>p</sub> =940nm, V <sub>R</sub> =5V

**SMD | Photo Interrupt**

Part Number	Package (mm)	IR Wavelength (nm)	Light Current (μA) Typ.	Test Condition
PIR4030S-D3 	4030-20	940	280	V <sub>CE</sub> =2V, I <sub>F</sub> =4mA, D=4mm
PIR3427S-D1 	3427-16	940	1300	V <sub>CE</sub> =5V, I <sub>F</sub> =20mA, D=1mm

Package Outline Drawing

Dimensions in "mm"

<p><b>MID 2219-09</b></p>	<p><b>SMD 1608-06</b></p>	<p><b>SMD 1608-08</b></p>
<p><b>SMD 1608-09</b></p>	<p><b>SMD 1608-11</b></p>	<p><b>SMD 1615-07</b></p>
<p><b>SMD 1708-06</b></p>	<p><b>SMD 2013-10</b></p>	<p><b>SMD 2406-14</b></p>

Package Outline Drawing

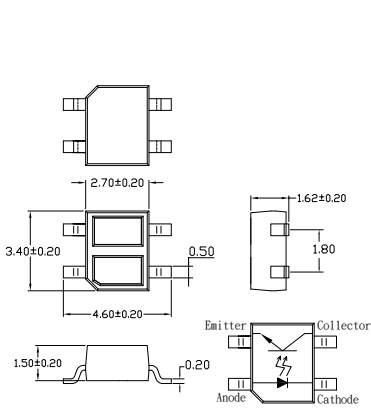
Dimensions in "mm"

<p><b>SMD 3010-20</b></p>	<p><b>SMD 3012-24</b></p>	<p><b>BP 3015-12</b></p>
<p><b>SMD 3015-12</b></p>	<p><b>SMD DIRP 3015-12</b></p>	<p><b>SMD 3016-24</b></p>
<p><b>SMD 3020-13</b></p>	<p><b>SMD 3216-18</b></p>	<p><b>SMD 3328-11</b></p>

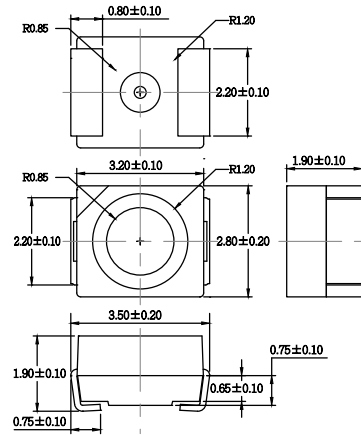
Package Outline Drawing

Dimensions in "mm"

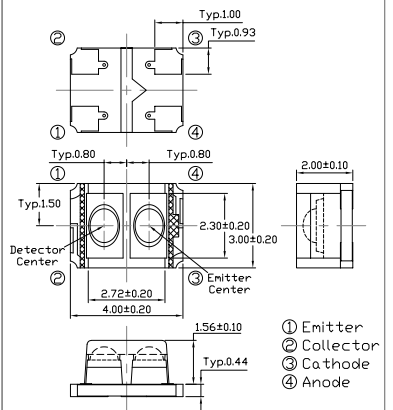
SMD 3427-16



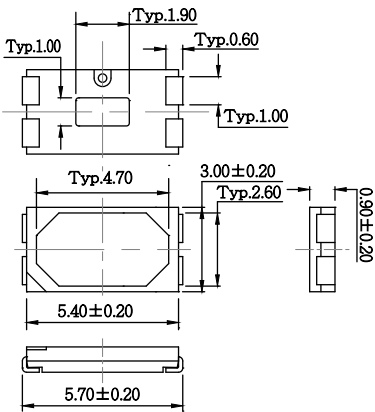
SMD 3528-19



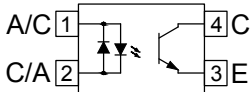
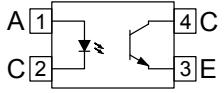
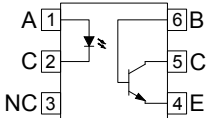
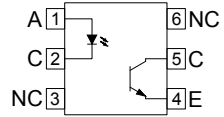
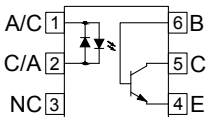
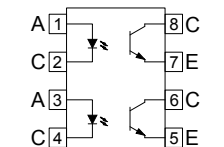
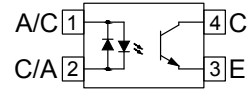
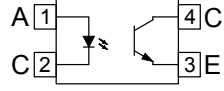
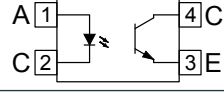
SMD 4030-20



SMD 5730-09



Transistor

Part Number	Circuit	Package	V <sub>ISO</sub> (rms) (V)	Input	Channel	CTR* (%)	BV <sub>CEO</sub> Min. (V)	T <sub>OPR</sub> (°C)
CT814		DIP-4	5000	AC	1	20~300	80	-55~110
CT816		DIP-4	5000	DC	1	50~600**	80	-55~110
CT817		DIP-4	5000	DC	1	50~600	35	-55~110
4N25/4N26 4N27/4N28		DIP-6	5000	DC	1	Min. 10	80	-55~110
4N35/4N36 4N37/4N38		DIP-6	5000	DC	1	Min. 20	80	-55~110
H11A1 H11A2 H11A3 H11A4 H11A5		DIP-6	5000	DC	1	Min. 10	80	-55~110
CNY17		DIP-6	5000	DC	1	40~320	80	-55~110
CNY17F			DIP-6	5000	DC	1	40~320	80
H11AA1 H11AA2 H11AA3 H11AA4		DIP-6	5000	AC	1	Min. 10	80	-55~110
CT827		DIP-8	5000	DC	2	50~600	80	-55~125
CT354		MFP-4L	3750	AC	1	20~300	80	-55~110
CT357		MFP-4L	3750	DC	1	50~600**	80	-55~110
CTH217		Half Pitch MFP-4L	3750	DC	1	50~600**	80	-55~125

\*CTR option available.

\*\*Low input current option available.

▪ Forming option available for DIP-4, DIP-6 and DIP-8.



# PHOTO COUPLER

Part Number	Circuit	Package	V <sub>ISO</sub> (rms) (V)	Input	Channel	CTR* (%)	BV <sub>CEO</sub> Min. (V)	T <sub>OPR</sub> (°C)
CTH214		Half Pitch MFP-4L	3750	AC	1	20~300	80	-55~110
CT1010-W/CT1011-W CT1012-W/CT1013-W CT1014-W/CT1015-W CT1016-W/CT1017-W CT1018-W/CT1019-W		Long Creepage- 4L	5000	DC	1	50~600**	80	-55~125
CT1110-W/CT1111-W CT1112-W/CT1113-W CT1114-W/CT1115-W CT1116-W/CT1117-W CT1118-W/CT1119-W		Long Creepage- 5L	5000	DC	1	50~600**	80	-55~125
CTP17		DFN	2500	DC	1	100~400	80	-55~125
CTD207 CTD208 CTD211 CTD213 CTD217		SOP-8	3750	DC	2	20~600	80	-55~125
CTM131		MFP	3750	DC	1	50~600	80	-55~115
CTH247		Half Pitch MFP-16L	3750	DC	4	50~400	80	-55~125

\*CTR option available.

\*\*Low input current option available.

▪ Forming option available for DIP-4, DIP-6 and DIP-8.

High Speed Analog

Part Number	Circuit	Package	V <sub>ISO</sub> (rms) (V)	Data Rate (Mbit/s)	CTR* (%)	CMR (V/μs)	T <sub>PHL</sub> /T <sub>PLH</sub> Max. (μs)	T <sub>OPR</sub> (°C)	
6N135		DIP-8	5000	1	7~50	1000	1.5/1.5	-55~100	
6N136		DIP-8	5000	1	19~50	1000	0.8/0.8	-55~100	
CT2502		DIP-8	5000	1	15~22	1000	1.5/1.5	-55~100	
CT2503		DIP-8	5000	1	>12	1000	0.8/0.8	-55~100	
CT4502		DIP-8	5000	1	19~50**	1000	0.8/0.8	-55~100	
CT4503		DIP-8	5000	1	19~50**	15000	0.8/0.8	-55~100	
CT4504		DIP-8	5000	1	26~65	15000	0.5/1.1	-55~100	
CT2530			DIP-8	5000	1	7~50	1000	1.5/1.5	-55~100
CT2531			DIP-8	5000	1	19~50	5000	0.8/0.8	-55~100
6N138		DIP-8	5000	0.1	Min. 300	1000	10/35	-55~100	
6N139		DIP-8	5000	0.1	Min. 500	1000	1/7	-55~100	
CTW135		Widebody-8L	5000	1	5~50	1000	1.5/1.5	-55~100	
CTW136		Widebody-8L	5000	1	15~50	1000	0.8/0.8	-55~100	
CTW4502		Widebody-8L	5000	1	15~50	15000	0.8/0.8	-55~100	
CTW4503		Widebody-8L	5000	1	15~50	15000	0.8/0.8	-55~100	
CTW138		Widebody-8L	5000	0.1	Min. 300	1000	10/35	-55~100	
CTW139		Widebody-8L	5000	0.1	Min. 500	1000	1/7	-55~100	
CTM452		MFP-5L	3750	1	20~50	5000	0.8/0.8	-55~100	
CTM453		MFP-5L	3750	1	20~50	15000	0.8/0.8	-55~100	

# PHOTO COUPLER

Part Number	Circuit	Package	V <sub>ISO</sub> (rms) (V)	Data Rate (Mbit/s)	CTR* (%)	CMR (V/μs)	T <sub>PHL</sub> /T <sub>PLH</sub> Max. (μs)	T <sub>OPR</sub> (°C)
CTS452		SDIP-6	5000	1	20~50	5000	0.8/0.8	-55~100
CTS453		SDIP-6	5000	1	20~50	15000	0.8/0.8	-55~100
CT0452		SOP-8	3750	1	19~50**	5000	0.8/0.8	-55~125
CT0453		SOP-8	3750	1	19~50**	15000	0.8/0.8	-55~125
CT0500		SOP-8	3750	1	7~50	1000	1.5/1.5	-55~125
CT0501		SOP-8	3750	1	19~50	1000	0.8/0.8	-55~125
CT0530		SOP-8	3750	1	7~50	1000	1.5/1.5	-55~125
CT0531		SOP-8	3750	1	19~50	1000	0.8/0.8	-55~125
CTL452		Long Creepage -5L	5000	1	7~50	1000	1.5/1.5	-55~125
CTL453		Long Creepage -5L	5000	1	19~50	1000	0.8/0.8	-55~125

\*CTR option available.

\*\*Low input current option available.

▪ Forming option available for DIP-8, Widebody-8L and SDIP-6.

## High Voltage Transistor

Part Number	Circuit	Package	V <sub>ISO</sub> (rms) (V)	Input	Channel	CTR* (%)	BV <sub>CEO</sub> Min. (V)	T <sub>OPR</sub> (°C)
CT851		DIP-4	5000	DC	1	50~600	350	-55~110
CT451		MFP-4L	3750	DC	1	50~600	350	-55~125

\*CTR option available.

▪ Forming option available for DIP-4.

Darlington

Part Number	Circuit	Package	V <sub>ISO</sub> (rms) (V)	Channel	CTR* (%)	BV <sub>CEO</sub> Min. (V)	T <sub>OPR</sub> (°C)
CT815		DIP-4	5000	1	600~7500	40	-55~110
4N29/4N30 4N31/4N32 4N33		DIP-6	5000	1	Min. 50	55	-55~100
H11B1 H11B2 H11B3		DIP-6	5000	1	Min. 100	55	-55~100
CT825		DIP-8	5000	2	Min. 600	40	-55~110
CT415		MFP-4L	3750	1	Min. 600	40	-55~110

\*CTR option available.

▪ Forming option available for DIP-4, DIP-6 and DIP-8.

High Voltage Darlington

Part Number	Circuit	Package	V <sub>ISO</sub> (rms) (V)	Channel	CTR* (%)	BV <sub>CEO</sub> Min. (V)	T <sub>OPR</sub> (°C)
CT852		DIP-4	5000	1	1000~15000	350	-55~110
CT452		MFP-4L	3750	1	1000~15000	350	-55~110

\*CTR option available.

▪ Forming option available for DIP-4.

High Speed Digital

Part Number	Circuit	Package	V <sub>ISO</sub> (rms) (V)	Data Rate (Mbit/s)	V <sub>CC</sub> (V)	I <sub>FT</sub> Max. (mA)	CMR (V/μs)	T <sub>PHL</sub> /T <sub>PLH</sub> Max. (ns)	T <sub>OPR</sub> (°C)
6N137		DIP-8	5000	10	7	5	1000	75/75	-55~100
CT2601		DIP-8	5000	10	7	5	5000	75/75	-55~100
CT2611		DIP-8	5000	10	7	5	15000	75/75	-55~100
CT2630		DIP-8	5000	10	7	5	5000	75/75	-55~100
CT2631		DIP-8	5000	10	7	5	10000	75/75	-55~100
CTW137		Widebody-8L	5000	10	7	5	1000	75/75	-55~100
CTW2601		Widebody-8L	5000	10	7	5	5000	75/75	-55~100
CTM600		MFP-5L	3750	10	7	5	-	75/75	-55~100
CTM601		MFP-5L	3750	10	7	5	5000	75/75	-55~100
CTM611		MFP-5L	3750	10	7	5	20000	75/75	-55~100
CTS600		SDIP-6	5000	10	7	5	-	75/75	-55~100
CTS601		SDIP-6	5000	10	7	5	5000	75/75	-55~100
CTS611		SDIP-6	5000	10	7	5	10000	75/75	-55~100
CT0601		SOP-8	3750	10	7	5	5000	75/75	-55~125
CT0611		SOP-8	3750	10	7	5	10000	75/75	-55~125
CT0630		SOP-8	3750	10	7	5	5000	75/75	-55~125
CT0631		SOP-8	3750	10	7	5	10000	75/75	-55~125
CT0201*		SOP-8	3750	5	7	5	1000	150/110	-55~125
CT0231*		SOP-8	3750	5	7	5	1000	150/110	-55~125

\* Totem pole output.

▪ Forming option available for DIP-8 Widebody-8L and SDIP-6.

Photo Triac | Zero Cross

Part Number	Circuit	Package	V <sub>ISO</sub> (rms) (V)	I <sub>FT</sub> Max. (mA)	V <sub>DRM</sub> (V)	Static DV/DT (V/μs)		T <sub>OPR</sub> (°C)
						Min.	Typ.	
CT3031-4L CT3032-4L CT3033-4L		DIP-4	5000	15 10 5	250	1000	-	-55~100
CT3041-4L CT3042-4L CT3043-4L		DIP-4	5000	15 10 5	400	1000	-	-55~100
CT3061-4L CT3062-4L CT3063-4L		DIP-4	5000	15 10 5	600	1000	-	-55~100
CT3081-4L CT3082-4L CT3083-4L		DIP-4	5000	15 10 5	800	600	-	-55~100
CT3031-5L CT3032-5L CT3033-5L		DIP-5	5000	15 10 5	250	1000	-	-55~100
CT3041-5L CT3042-5L CT3043-5L		DIP-5	5000	15 10 5	400	1000	-	-55~100
CT3061-5L CT3062-5L CT3063-5L		DIP-5	5000	15 10 5	600	1000	-	-55~100
CT3081-5L CT3082-5L CT3083-5L		DIP-5	5000	15 10 5	800	600	-	-55~100
CT3031 CT3032 CT3033		DIP-6	5000	15 10 5	250	1000	-	-55~100
CT3041 CT3042 CT3043		DIP-6	5000	15 10 5	400	1000	-	-55~100
CT3061 CT3062 CT3063		DIP-6	5000	15 10 5	600	1000	-	-55~100
CT3081 CT3082 CT3083		DIP-6	5000	15 10 5	800	600	-	-55~100

▪ Forming option available for DIP-4, DIP-5 and DIP-6.

# PHOTO COUPLER

Part Number	Circuit	Package	V <sub>ISO</sub> (rms) (V)	I <sub>FT</sub> Max. (mA)	V <sub>DRM</sub> (V)	Static DV/DT (V/μs)		T <sub>OPR</sub> (°C)
						Min.	Typ.	
CTM3031 CTM3032 CTM3033		MFP-4L	3750	15 10 5	250	1000	-	-55~100
CTM3041 CTM3042 CTM3043		MFP-4L	3750	15 10 5	400	1000	-	-55~100
CTM3061 CTM3062 CTM3063		MFP-4L	3750	15 10 5	600	1000	-	-55~100
CTM3081 CTM3082 CTM3083		MFP-4L	3750	15 10 5	800	600	-	-55~100

▪ Forming option available for DIP-4, DIP-5 and DIP-6.

## Photo Power Triac

Part Number	Circuit	Package	V <sub>ISO</sub> (rms) (V)	I <sub>FT</sub> Max. (mA)	V <sub>DRM</sub> (V)	I <sub>T(RMS)</sub> (A)	I <sub>TSM</sub> (A)	T <sub>OPR</sub> (°C)
CTT0213 CTT1213 CTT2213 CTT3213		DIP-7	5000	10	600	0.3 0.6 0.9 1.2	3 6 9 12	-40~85
CTT0214 CTT1214 CTT2214 CTT3214		DIP-7	5000	5	600	0.3 0.6 0.9 1.2	3 6 9 12	-40~85
CTT0223 CTT1223 CTT2223 CTT3223		DIP-7	5000	10	600	0.3 0.6 0.9 1.2	3 6 9 12	-40~85
CTT0224 CTT1224 CTT2224 CTT3224		DIP-7	5000	5	600	0.3 0.6 0.9 1.2	3 6 9 12	-40~85

▪ Forming option available for DIP-7.

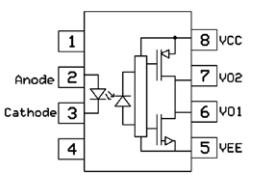
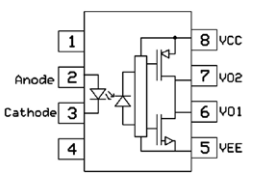
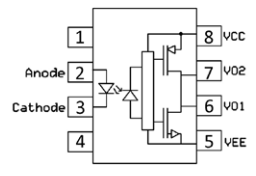
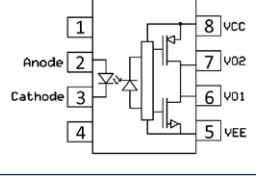
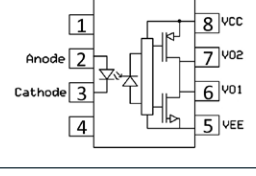
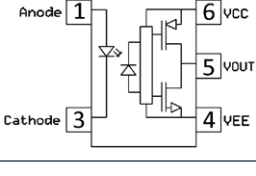
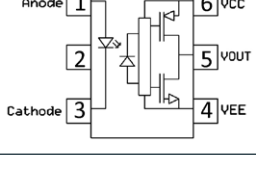
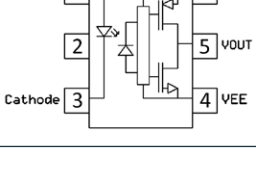
Photo Triac | Random Phase

Part Number	Circuit	Package	V <sub>ISO</sub> (rms) (V)	I <sub>FT</sub> Max. (mA)	V <sub>DRM</sub> (V)	Static DV/DT (V/μs)		T <sub>OPR</sub> (°C)
						Min.	Typ.	
CT3010-4L CT3011-4L CT3012-4L		DIP-4	5000	15 10 5	250	-	100	-55~100
CT3021-4L CT3022-4L CT3023-4L		DIP-4	5000	15 10 5	400	-	100	-55~100
CT3051-4L CT3052-4L CT3053-4L		DIP-4	5000	15 10 5	600	1000	-	-55~100
CT3010-5L CT3011-5L CT3012-5L		DIP-5	5000	15 10 5	250	-	100	-55~100
CT3020-5L CT3021-5L CT3022-5L CT3023-5L		DIP-5	5000	30 15 10 5	400	-	100	-55~100
CT3051-5L CT3052-5L CT3053-5L		DIP-5	5000	15 10 5	600	1000	-	-55~100
CT3010 CT3011 CT3012		DIP-6	5000	15 10 5	250	-	100	-55~100
CT3020 CT3021 CT3022 CT3023		DIP-6	5000	30 15 10 5	400	-	100	-55~100
CT3051 CT3052 CT3053		DIP-6	5000	15 10 5	600	1000	-	-55~100
CTM3010 CTM3011 CTM3012		MFP-4L	3750	15 10 5	250	-	100	-55~100
CTM3021 CTM3022 CTM3023		MFP-4L	3750	15 10 5	400	-	100	-55~100
CTM3051 CTM3052 CTM3053		MFP-4L	3750	15 10 5	600	1000	-	-55~100

▪ Forming option available for DIP-4, DIP-5 and DIP-6.

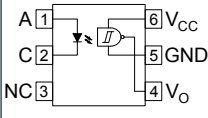


IGBT Gate Driver

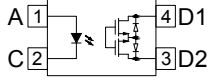
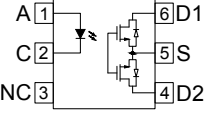
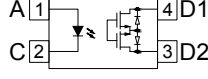
Part Number	Circuit	Package	V <sub>ISO</sub> (rms) (V)	Output Current (A)	Supply Current Max. (mA)	Pulse Width Distortion Max. (ns)	T <sub>PHL</sub> /T <sub>PLH</sub> Max. (μs)	T <sub>OPR</sub> (°C)
CT350		DIP-8	5000	2.5	3.7	100	300/300	-40~100
CT3120		DIP-8	5000	2.5	3.7	100	300/300	-40~100
CT250		DIP-8	5000	1	3	45	200/200	-40~100
CT3150		DIP-8	5000	1	3	45	200/200	-40~100
CTW3120		Widebody-8L	5000	2.5	3.7	100	300/300	-40~100
CTM314		MFP-5L	3750	0.6	3	45	200/200	-40~100
CTS700		SDIP-6	5000	2.5	3	100	500/500	-40~100
CTS701		SDIP-6	5000	0.6	3	45	200/200	-40~100

▪ Forming option available for DIP-8, Widebody-8L and SDIP-6.

### Schmitt Trigger

Part Number	Circuit	Package	V <sub>ISO</sub> (rms) (V)	Data Rate (Mbit/s)	Hysteresis Ratio	Supply Voltage (V)	I <sub>F(ON)</sub> Max. (mA)	T <sub>OPR</sub> (°C)
H11L1 H11L2 H11L3		DIP-6	5000	1	0.5~0.9	3~15	1.6 10 5	-55~100

### Solid State Relay

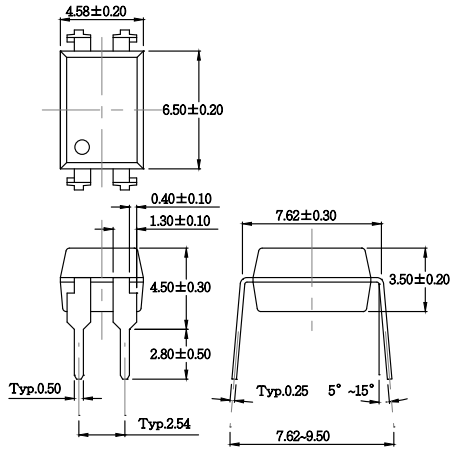
Part Number	Circuit	Package	V <sub>ISO</sub> (rms) (V)	I <sub>F(ON)</sub> Max. (mA)	Load Voltage (V)	Ron Max. (Ω)			T <sub>OPR</sub> (°C)
						A	B	C	
CTR212-4L		DIP-4	5000	3	60	1.4	-	-	-40~85
CTR213-4L		DIP-4	5000	3	250	8	-	-	-40~85
CTR214-4L		DIP-4	5000	3	400	16	-	-	-40~85
CTR216-4L		DIP-4	5000	3	600	30	-	-	-40~85
CTR212-6L		DIP-6	5000	3	60	1.4	0.7	3.5	-40~85
CTR213-6L		DIP-6	5000	3	250	8	4	2	-40~85
CTR214-6L		DIP-6	5000	3	400	16	8	4	-40~85
CTR216-6L		DIP-6	5000	3	600	30	15	7.5	-40~85
CTR214-M4		MFP	3750	3	400	40	-	-	-40~125

▪ Forming option available for DIP-4 and DIP-6.

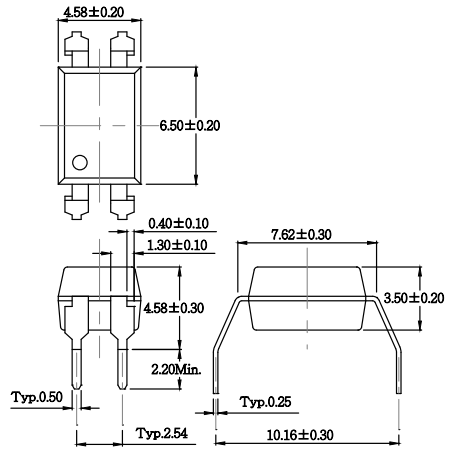
Package Outline Drawing

Dimensions in "mm"

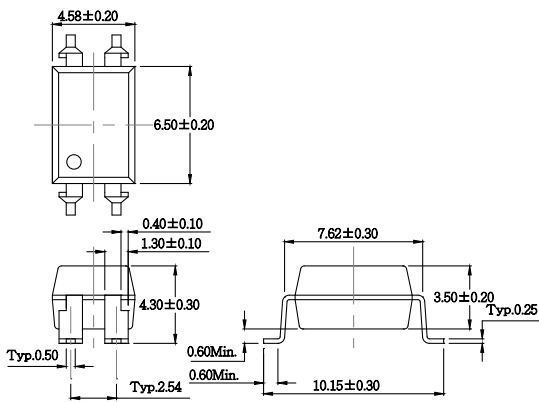
DIP-4 (Standard)



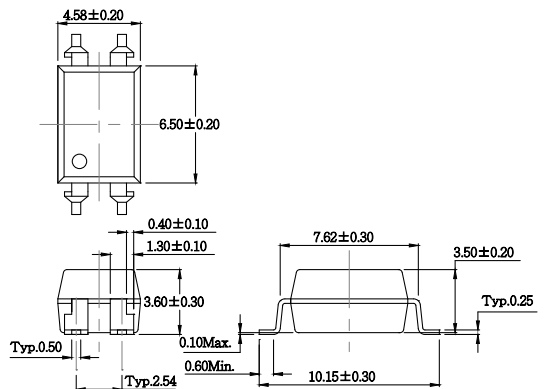
DIP-4 (M Type)



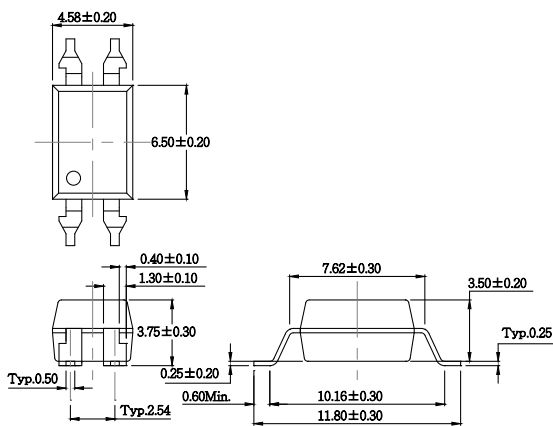
DIP-4 (S Type)



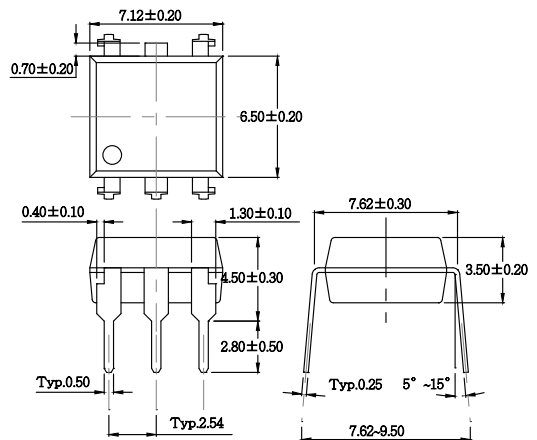
DIP-4 (SL Type)



DIP-4 (SLM Type)



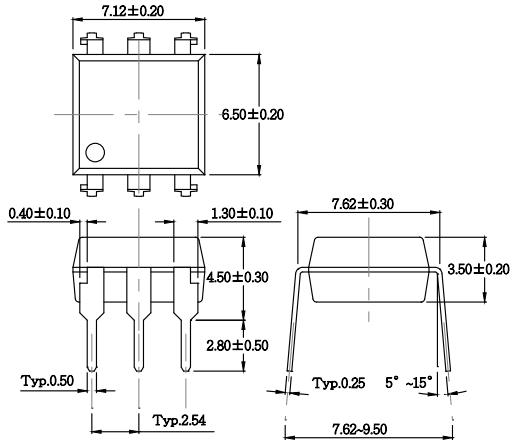
DIP-5



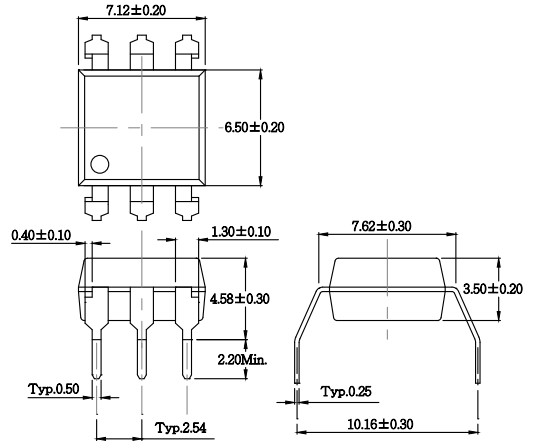
Package Outline Drawing

Dimensions in "mm"

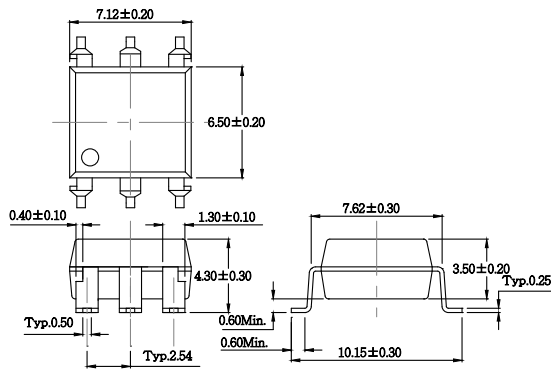
DIP-6 (Standard)



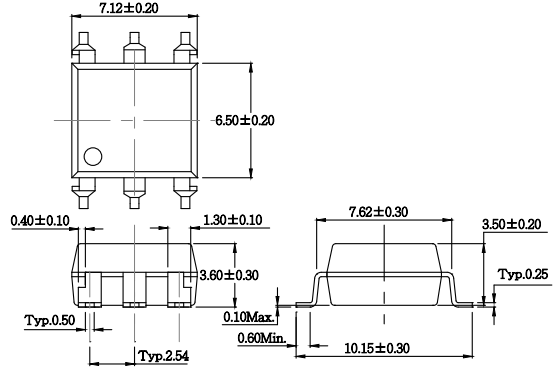
DIP-6 (M Type)



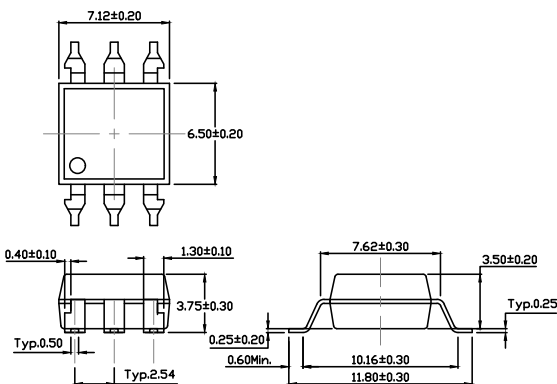
DIP-6 (S Type)



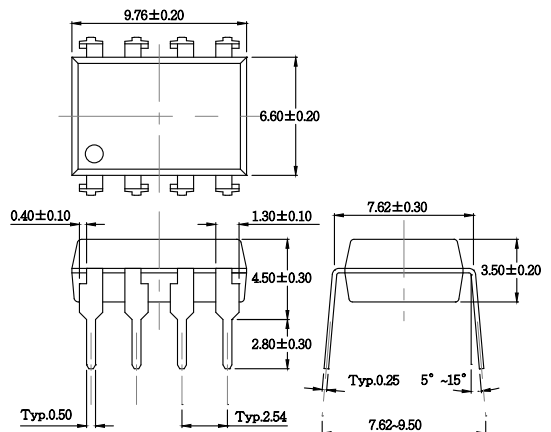
DIP-6 (SL Type)



DIP-6 (SLM Type)



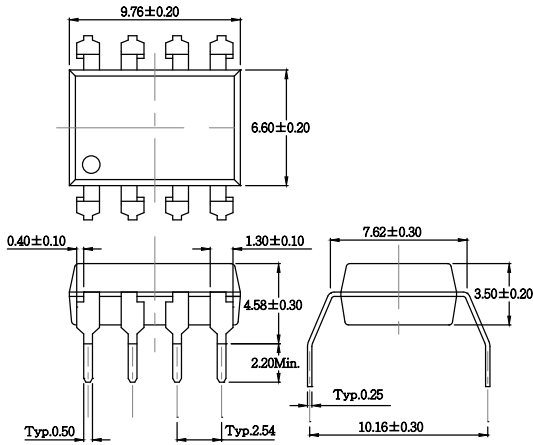
DIP-8 (Standard)



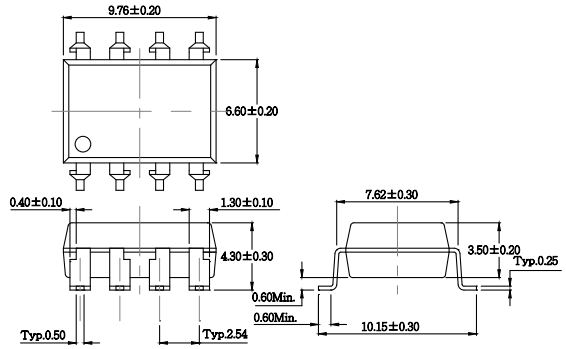
Package Outline Drawing

Dimensions in "mm"

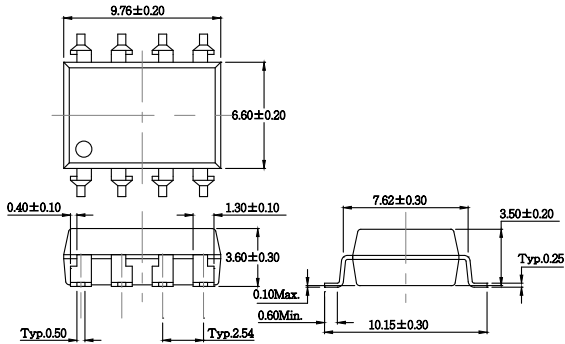
DIP-8 (M Type)



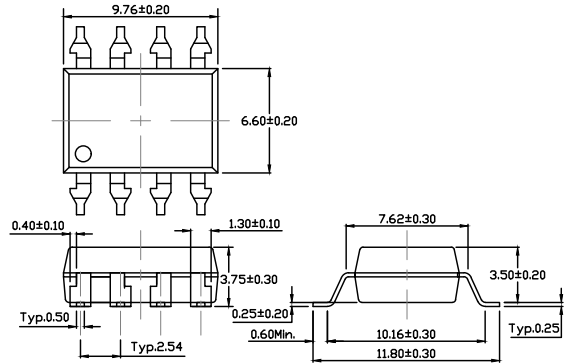
DIP-8 (S Type)



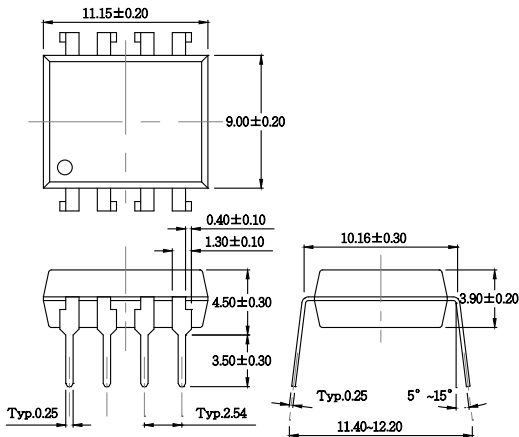
DIP-8 (SL Type)



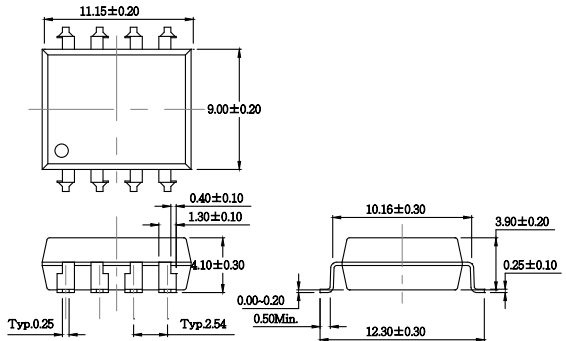
DIP-8 (SLM Type)



Widebody-8L (Standard)



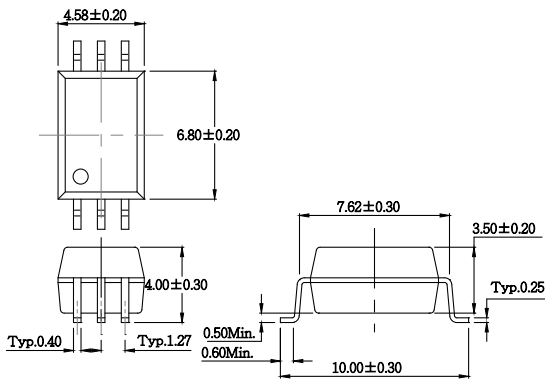
Widebody-8L (S Type)



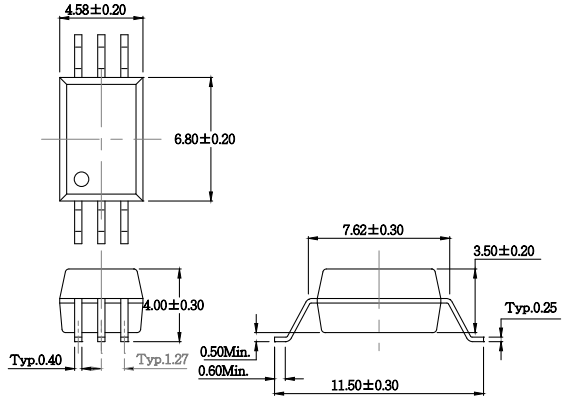
Package Outline Drawing

Dimensions in "mm"

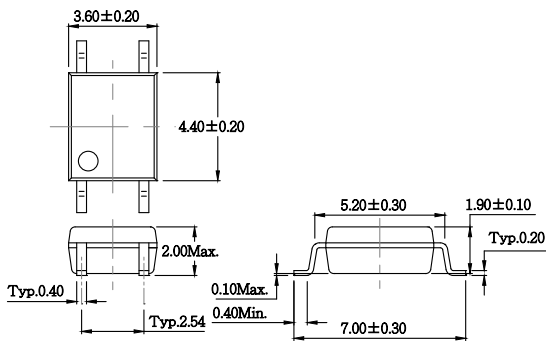
SDIP-6



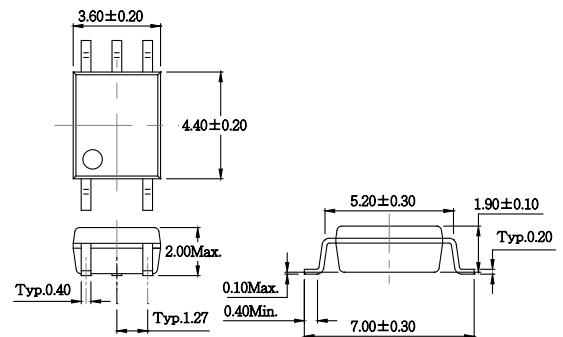
SDIP-6 (M Type)



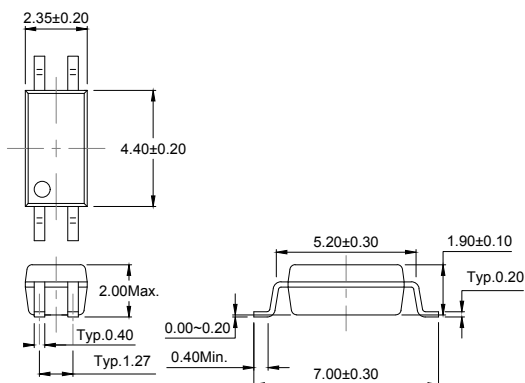
MFP-4L



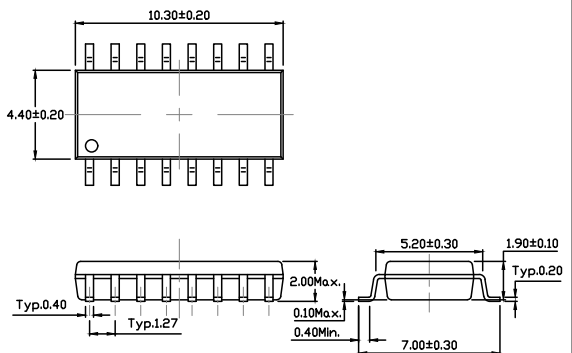
MFP-5L



Half Pitch MFP-4L



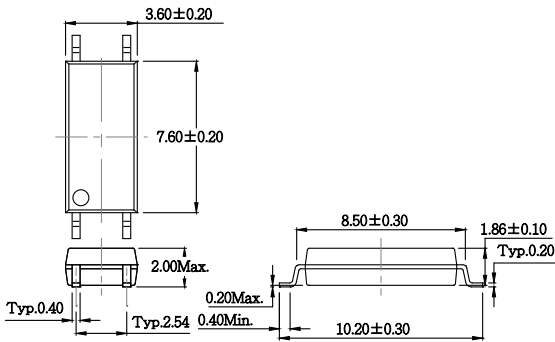
Half Pitch MFP-16L



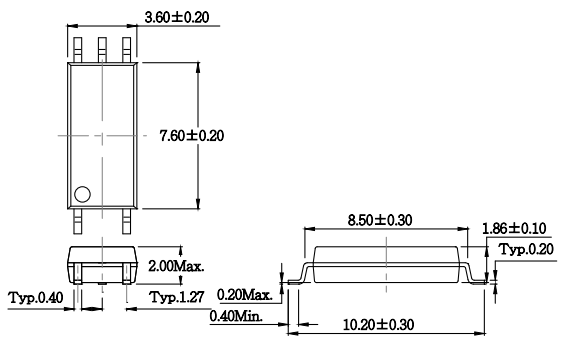
Package Outline Drawing

Dimensions in "mm"

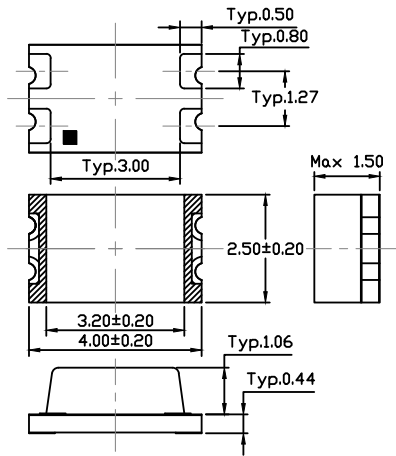
Long Creepage-4L



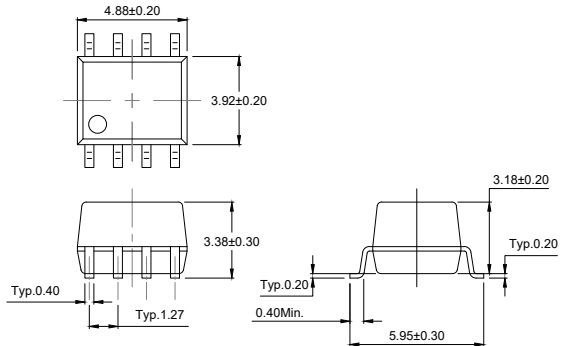
Long Creepage-5L



DFN



SOP-8



### High Voltage MOSFET

Part Number	Package (mm)	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>D</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , Ω@ V <sub>GS</sub> =10V		Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>oss</sub> (pF)	C <sub>rss</sub> (pF)
						Typ.	Max.						
CTV0150NS	TO-251, TO-252, TO-220F, TO-220	500	30	1	3	6.1	7.2	7	2.3	3.6	286	44	3
CTV0250NS	TO-251, TO-252, TO-220F, TO-220	500	30	2	3	2.55	3	8	2.4	4	335	50	5
CTV0350NS	TO-251, TO-252, TO-220F, TO-220	500	30	3	3	2.4	2.8	10	2.5	4.7	350	55	6
CTV0450NS	TO-251, TO-252, TO-220F, TO-220	500	30	4	3	1.75	2.06	11	2.4	4.2	420	61	9
CTV0550NS	TO-251, TO-252, TO-220F, TO-220	500	30	5	3	1.32	1.55	11	2.4	4.4	545	64	12
CTV0260NS	TO-251, TO-252, TO-220F, TO-220	600	30	2	3	3.8	4.4	7	1.5	2.9	300	37	9
CTV0460NS	TO-251, TO-252, TO-220F, TO-220	600	30	4	3	2	2.37	11.2	2.2	4.9	500	60	12
CTV0860NS	TO-220F, TO-220	600	30	8	3	0.94	1.11	13.4	2.9	5.5	1080	106	10
CTV1060NS	TO-220F, TO-220	600	30	10	3	0.66	0.77	37	4.2	11.7	2120	184	38
CTV1260NS	TO-220F, TO-220	600	30	12	3	0.57	0.67	46	4	16.1	2290	172	46
CTV0265NS	TO-251, TO-252, TO-220F, TO-220	650	30	2	3	4.3	5.05	5	1.4	2.2	302	37	10
CTV0365NS	TO-251, TO-252, TO-220F, TO-220	650	30	3	3	3.2	3.65	7.2	1.6	3	375	41	12
CTV0465NS	TO-251, TO-252, TO-220F, TO-220	650	30	4	3	2.3	2.7	8.2	1.7	3.8	490	54	12
CTV0765NS	TO-220F, TO-220	650	30	7	3	1.35	1.55	21	3.6	8	1025	110	13
CTV0865NS	TO-220F, TO-220	650	30	8	3	1.15	1.34	15	2.5	6	937	93	13
CTV0270NS	TO-251, TO-252, TO-220F, TO-220	700	30	2	3	4.7	5.5	6.5	1.5	2.3	302	36	7
CTV0370NS	TO-251, TO-252, TO-220F, TO-220	700	30	3	3	3.4	4.02	8.3	1.7	2.7	417	45	8
CTV0470NS	TO-251, TO-252, TO-220F, TO-220	700	30	4	3	2.6	3.09	11.2	2.3	5.4	760	63	13
CTV0570NS	TO-220F, TO-220	700	30	5	3	2.55	1.85	18	2.9	6.4	926	85	11
CTV0670NS	TO-220F, TO-220	700	30	6	3	1.4	1.65	15.5	2.6	6.1	1000	92	12

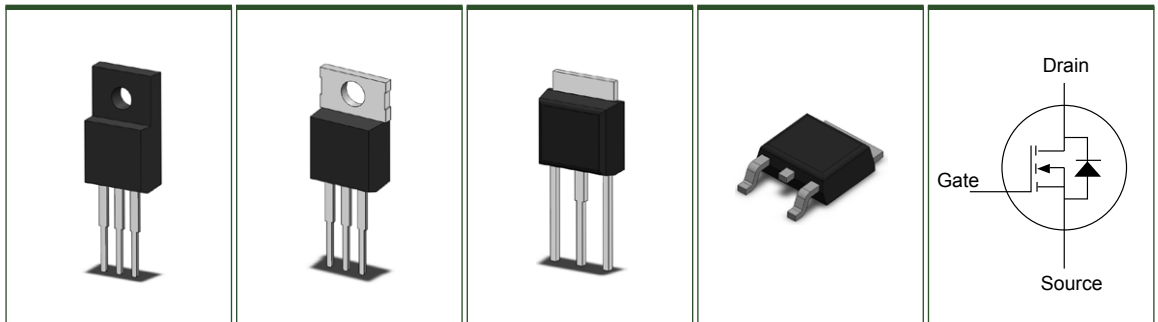
TO-220F

TO-220

TO-251

TO-252

N Channel



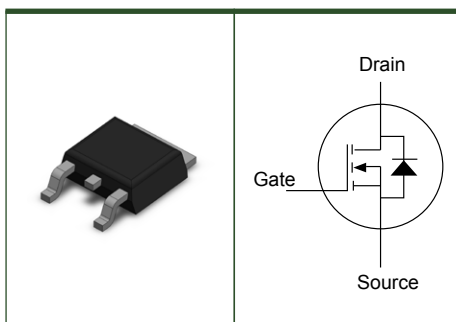


## TO-252 N Channel

Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>D</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(on)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>oss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
CTH5002NS-T52	25	20	50	3	6.5	8.5	10	13	-	-	-	-	11	4.5	4	1100	190
CTH6402NS-T52	25	20	64	3	4	6	8	13	-	-	-	-	19.5	8	11	1600	100
CTH2503NS-T52	30	20	25	3	21	28	32	42	-	-	-	-	6.2	2.7	2.3	330	17
CTH4803NS-T52	30	20	48	3	6.5	8.5	10	13	-	-	-	-	22	4.5	4	1100	90
CTH7403NS-T52*	30	20	74	3	4	4.8	7	9	-	-	-	-	27	11	14	2400	110
CTL850NS03-T52	30	20	85	2.5	3.1	4	4.5	6	-	-	-	-	25	4.5	13	2200	175
CTH10003NS-T52	30	20	100	3	2.6	3.2	3.3	4.2	-	-	-	-	68	22	33	6020	302
CTH3904NS-T52	40	20	39	3	9	12	13	17	-	-	-	-	16	6.5	8.3	1240	60
CTL500NS04-T52	40	20	50	2.5	6.5	8.5	9	12	-	-	-	-	24.4	3.3	6.7	1220	55
CTL900NS04-T52	40	20	90	2.5	3.1	3.8	4	5	-	-	-	-	44.4	9.6	16	4940	170
CTH2204NS-T52	40	25	22	3	22	28	40	52	-	-	-	-	8	4	4	560	18
CTH4106NS-T52	60	20	41	2.5	16	22	-	-	-	-	-	-	28	3.5	6.5	1680	85
CTH6406NS-T52	60	20	64	2.4	7.3	9	-	-	-	-	-	-	24	5	3	1400	20
CTH1606NS-T52	60	25	16	3	52	62	70	86	-	-	-	-	17	4.2	5	523	14
CTL677NS08-T52	80	20	67.7	3.4	6.8	8.5	8.7	12	-	-	-	-	136	35.6	37.6	1590	258
CTL190NS10-T52	100	20	19	2.5	65	78	75	98	-	-	-	-	16.8	7.3	9.7	1120	54
CTL281NS10-T52	100	20	28.1	3	17	22	20	26	-	-	-	-	54.2	16.5	20.8	4400	233
CTD0018A-T52	100	20	45	4.5	18	22	-	-	-	-	-	-	27.6	11.4	7.9	1890	67
CTL505NS10-T52	100	20	50.5	4	14	17	-	-	-	-	-	-	28	28.6	34.4	6170	307
CTL090NS20-T52	200	20	9	4	350	400	-	-	-	-	-	-	51.8	12.8	18.4	2610	20
CTL160NS25-T52	250	30	16	5	165	200	-	-	-	-	-	-	28	8	10	1370	20

\*With ESD protection function.

## TO-252 N Channel



**TO-252 P Channel**

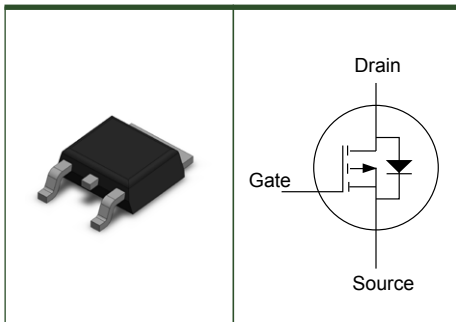
Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
CTL1363PS-T52	-30	20	-13.6	-3	50	60	70	90	-	-	-	-	7	3	2	465	25
CTL2763PS-T52	-30	20	-27.6	-3	27	32	35	42	-	-	-	-	10	5	4.2	804	40
CTH8003PS-T52	-30	20	-80	-3	6.7	8	8.4	11	-	-	-	-	44	12.5	19.5	3650	165
CTH3603PS-T52	-30	25	-36.7	-3	16	20	25	32	-	-	-	-	30	6	7	1210	74
CTH4703PS-T52	-30	25	-47	-3	9	12	11	14.5	-	-	-	-	28	9.3	11.5	2360	128
CTH3004PS-T52	-40	20	-30	-3	15	18	18	25	-	-	-	-	25	11	9.5	2760	85
CTH1804PS-T52	-40	25	-18.6	-3	35	45	57	80	-	-	-	-	10	4.3	4.5	860	35
CTH1706PS-T52	-60	20	-17	-3	65	78	80	100	-	-	-	-	10	6.3	5	958	33
CTH6106PS-T52	-60	20	-61	-3	14	17	16	20	-	-	-	-	46	18	24	4130	145
CTL130PS10-T52	-100	20	-13	-3	160	195	170	210	-	-	-	-	14	5.3	5.9	1240	30
CTL300PS10-T52	-100	20	-30	-2.5	36	45	40	55	-	-	-	-	98	16.2	13.8	6315	50

**TSSOP-8 Dual N Channel**

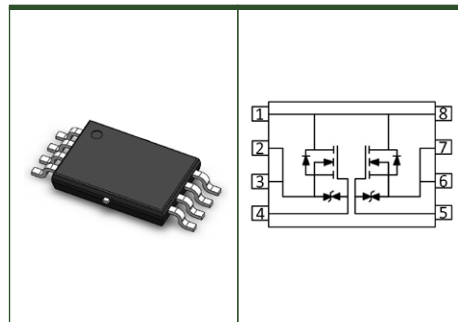
Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
CT8205-TS8	20	12	6	1	-	-	21	28	27	35	-	-	7.5	3	2	58	62
CT8205E-TS8*	20	12	6	1	-	-	18	21	20.2	25	26	33	2.48	0.68	1.72	33	14.5
CTL0612ND-TS8	20	12	6.1	1	16.5	21	19	24	23	32	30	50	9.5	3.9	2.8	690	31.3
CTL0652ND-TS8*	20	12	6.5	1	19	25	21	27	26	32	-	-	10	2.2	3.6	245	26
CTL0732ND-TS8*	20	12	7.3	1.2	-	-	12	14.5	16	20	-	-	19	3.2	7.4	365	37

\*With ESD protection function.

**TO-252 P Channel**



**TSSOP-8 Dual N Channel**



## SOP-8 N Channel

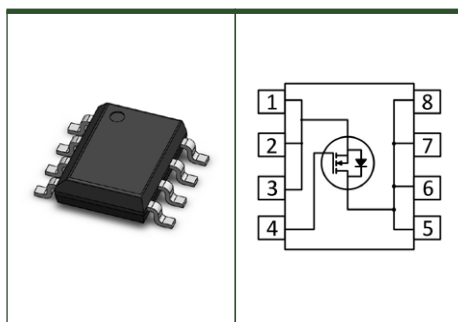
Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
CTL0753NS-S8	30	20	7.5	3	12	14	17	22	-	-	-	-	20	5	4.9	700	35
CTL0963NS-S8*	30	20	9.6	3	13	17	18	25	-	-	-	-	18	4.3	3.8	715	31
CT8040-S8	30	20	11	3	8.5	10	12	17	-	-	-	-	29	5.8	7.4	1180	126
CTL1133NS-S8***	30	20	11.3	3	10	13	18	21.5	-	-	-	-	19.4	4.2	4.6	830	84
CTL1143NS-S8**	30	20	11.4	3	9.5	12	16	21	-	-	-	-	22	5	4.6	865	153
CTL1203NS-S8	30	20	12	3	8.5	11	14	17.5	-	-	-	-	22	4	4.4	820	40
CTL1263NS-S8**	30	20	12.6	3	8.4	11	14	17	-	-	-	-	22	4.7	4.9	930	96
CTL1603NS-S8	30	20	16	3	4.5	6	6.5	8.5	-	-	-	-	58	10	15	2400	110
CTL1953NS-S8*	30	20	19.5	3	3.5	5.5	6.5	8.5	-	-	-	-	54	11	14	2400	110
CTL2103NS-S8	30	20	21	3	2.8	3.5	3.3	4.5	-	-	-	-	144	18	27	5730	220
CTL2503NS-S8	30	20	25	3	2	2.6	3	3.9	-	-	-	-	138	20	32	5970	312
CTL1843NS-S8*	35	20	18.4	3	3	4.6	5.2	6.6	-	-	-	-	104	16	23	4670	227
CTL1903NS-S8	35	20	19	3	3.6	4.3	7.3	9.5	-	-	-	-	88	19	23	4310	185
CTL1064NS-S8	40	20	10.6	3	11	13	14	18	-	-	-	-	28	5.8	6.5	1220	53
CTL0716NS-S8	60	20	7.1	3	26	33	31	40	-	-	-	-	27	7.1	7.5	940	33
CTL086NS06-S8	60	20	8.6	2.5	17	21	20	24	-	-	-	-	28	3.6	6.5	1680	85
CTL122NS08-S8	80	25	12.2	4	8	11	-	-	-	-	-	-	130	36.1	41	1611	218
CTL036NS10-S8	100	20	3.6	3	95	120	110	145	-	-	-	-	28	3.8	7.5	905	43
CTL084NS10-S8	100	20	8.4	3	18	22	24	30	-	-	-	-	98	16.5	33.4	1403	223
CTL041NS15-S8	150	20	4.1	4	52	65	60	85	-	-	-	-	28	8.7	8	1790	82

\*With ESD protection function.

\*\*With schottky function.

\*\*\*With schottky and ESD protection function.

## SOP-8 N Channel

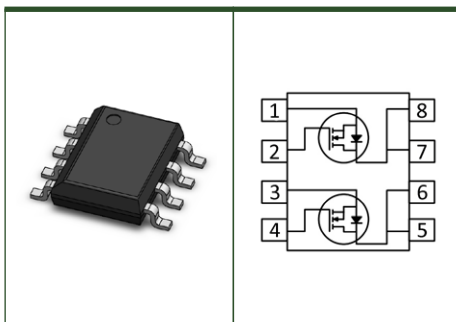


SOP-8 Dual N Channel

Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
CT9926-S8	20	12	6	1	-	-	22	29	32	42	-	-	15.8	2.4	2	576	22
CTL0403ND-S8	30	12	4	1.4	52	65	60	75	84	100	-	-	9.4	1.9	1.5	260	5
CTL0513ND-S8	30	20	5.1	3	23	36	34	45	-	-	-	-	13	3.5	3	380	18
CTL0603ND-S8	30	20	6	3	26	35	36	45	-	-	-	-	11.5	2.7	2.3	350	16
CTL0673ND-S8*	30	20	6.7	3	23	30	34	40	-	-	-	-	11	3	2	360	20
CTL1003ND-S8	30	20	10	3	13.2	16	16.8	20	-	-	-	-	19	3.6	3.4	841	71
CTL0804ND-S8	40	20	8	3	16	20	22	29	-	-	-	-	11	4.9	4.7	884	39
CTL0386ND-S8	60	20	3.8	3	73	87	90	117	-	-	-	-	13.2	2.8	2.8	360	5
CTL0506ND-S8	60	20	5	3	33	41	40	52	-	-	-	-	13.3	7.1	7.5	940	33
CTL018ND10-S8	100	20	1.8	3	220	270	270	350	-	-	-	-	13	2.7	3.3	333	11
CTL033ND10-S8	100	20	3.3	3	95	115	105	137	-	-	-	-	28	3.8	7.5	905	43
CTL040ND10-S8	100	20	4	2.5	65	80	75	98	-	-	-	-	35	9.9	5.6	1106	46

\*With ESD protection function.

SOP-8 Dual N Channel

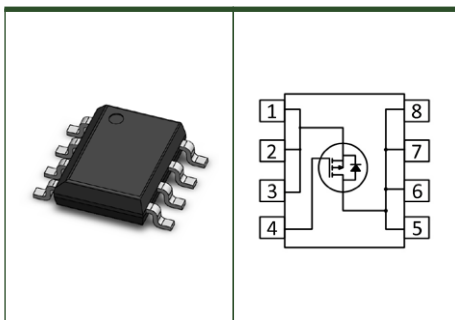


## SOP-8 P Channel

Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
<b>CT9435-S8</b>	-30	20	-5.3	-3	48	60	65	90	-	-	-	-	13	2.6	3.6	500	25
<b>CTL0633PS-S8</b>	-30	20	-6.3	-3	31	40	40	60	-	-	-	-	21	6	5.4	840	35
<b>CTL0723PS-S8*</b>	-30	20	-7.2	-2	14	20	24	30	-	-	-	-	41	7.9	11.9	1751	224
<b>CT4435-S8</b>	-30	20	-9.1	-2.5	15	20	20	35	-	-	-	-	33.8	4.9	5.2	1360	80
<b>CT8126-S8</b>	-30	20	-12	-3	8.5	10	11	14	-	-	-	-	70	7	18	3200	320
<b>CTL1263PS-S8*</b>	-30	20	-12.6	-1.25	8	9.8	9	13	-	-	-	-	78	7	10	3445	102
<b>CTL1733PS-S8</b>	-30	20	-17.3	-3	4	5.2	7	9.5	-	-	-	-	156	24	40	6150	327
<b>CTL0863PS-S8</b>	-30	25	-8.6	-3	16	21	22	29	-	-	-	-	54	14	10	2300	130
<b>CTL059PS04-S8</b>	-40	20	-5.9	-3	37	45	54	68	-	-	-	-	21	5	4.5	863	40
<b>CTL082PS04-S8</b>	-40	20	-8.2	-2.5	20	23	27	32	-	-	-	-	19	6.2	5.2	2260	130
<b>CTL100PS04-S8</b>	-40	20	-10	-2.5	11.5	15	16	22	-	-	-	-	44.8	8.2	9	2760	140
<b>CTL0446PS-S8</b>	-60	20	-4.4	-3	60	72	73	94	-	-	-	-	22.8	5.1	4.9	962	33

\*With ESD protection function.

SOP-8 P Channel



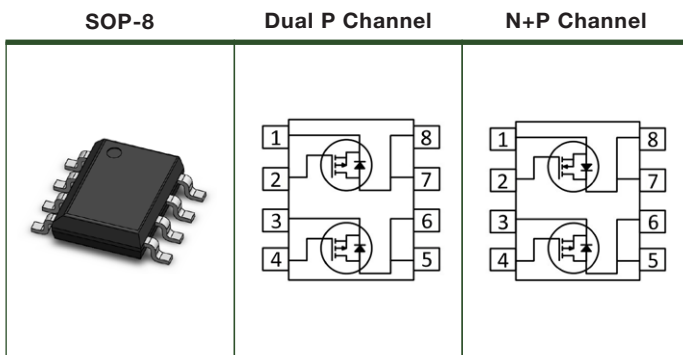
SOP-8 Dual P Channel

Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
<b>CT8313-S8</b>	-12	8	-6	-1	-	-	30	40	40	53	60	72	24.8	2.9	3.5	1020	243
<b>CTL1003PD-S8</b>	-30	20	-10	-3	15	20	25	35	-	-	-	-	34	5.2	7.2	1360	76

SOP-8 N+P Channel

Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
<b>CTL083MD03-S8</b>	30	20	8.3	2.5	15	18	21	29	-	-	-	-	16.5	3.8	3.4	502	59
	-30	20	-7.3	-2.5	17	20	21	29	-	-	-	-	31.5	5.6	6.3	892	133
<b>CTL068MD03E-S8*</b>	30	20	6.8	3	21	25.5	33	40	-	-	-	-	11	3	2	360	20
	-30	16	-6.2	-3	25	33	32	43	-	-	-	-	23	4	3.7	880	40
<b>CTL0694MD-S8</b>	40	20	6.9	3	22	26.5	35	45	-	-	-	-	7	4.1	3.4	565	24
	-40	20	-5.3	-3	36	44	47	60	-	-	-	-	10	4.1	4.9	859	41
<b>CTL055MD04-S8</b>	40	16	5.5	3	35	42	39	51	-	-	-	-	7.3	2.7	2.3	569	17
	-40	16	-5.2	-3	39	47	44	57	-	-	-	-	12	4.3	4	1050	32
<b>CTL061MD06-S8</b>	60	20	6.1	2.5	28	34	32	42	-	-	-	-	13.2	3.1	4.9	636	54
	-60	20	-4.4	-2.5	55	66	66	86	-	-	-	-	11.3	4.7	4.5	725	54

\*With ESD protection function.

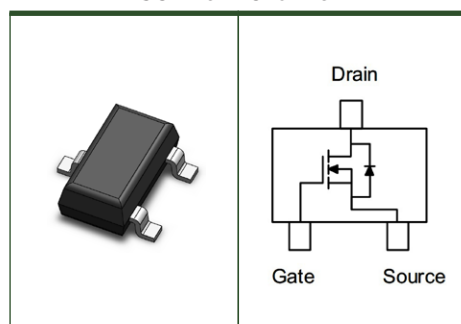


## SOT-23 N Channel

Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
CT3A01-R3	20	8	3.2	1.2	-	-	55	85	65	115	80	130	4.9	1	1.2	455	60
CT2312-R3	20	8	4.5	1	-	-	23	33	27	40	-	-	15	1	2	599	73
CTL0642NS-R3*	20	8	6.4	1	-	-	17	21	20	25	25	33	20	0.9	3	150	25
CT2300-R3	20	12	4	1	-	-	23	33	27	40	-	-	15	1	2	600	75
CTL0502NS-R3	20	12	5	1.4	-	-	21	31	24	37	31	47	14	1	1.5	668	86
CTL0343NS-R3	30	12	3.4	1.4	58	75	66	85	88	120	-	-	9.4	1.8	1.4	250	6
CTL0383NS-R3*	30	12	3.8	1.4	48	60	54	70	75	100	-	-	9.4	1.9	1.6	247	5
CT3400-R3	30	12	5.8	1.4	23.5	28	26.5	38	-	-	-	-	22	1.6	2.8	600	50
CT3400A-R3	30	12	5.8	1.4	23	28	26	35	35	50	-	-	69	1.4	2.1	595	48
CTL0233NS-R3	30	20	2.3	3	92	117	142	190	-	-	-	-	4.5	0.8	1	240	17
CT2306-R3	30	20	4.7	3	25	37	35	49	-	-	-	-	12.8	2.9	2.4	380	15
CTL0503NS-R3*	30	20	5	3	26	31	40	52	-	-	-	-	12	3	2.1	370	21
CTL0404NS-R3	40	20	4	3	32	40	50	65	-	-	-	-	16.4	3.6	3.9	560	22
CTL0035NS-R3	50	20	0.3	1.5	1300	3000	1400	3500	1600	7000	-	-	7.03	1.84	0.65	42	3
CTL0036NS-R3*	60	20	0.3	2.5	-	3000	-	4000	-	-	-	-	0.8	-	-	35	5
CTL0266NS-R3	60	20	2.6	3	82	100	96	130	-	-	-	-	13	2.2	2.7	350	12
CTLM17NS10-R3	100	20	0.17	2	3000	6000	3000	10000	-	-	-	-	6.3	1.55	0.68	42.7	3
CTL020NS10-R3	100	20	2	2.5	161	200	175	210	-	-	-	-	13.4	2.9	1.7	820	20
CTL015NS10-R3	105	20	1.5	3	230	270	275	340	-	-	-	-	13	2.6	3.3	326	11
CTLM43NS20-R3	200	20	0.43	3	3600	4300	3700	4500	-	-	-	-	8.6	2.7	1.1	373	8

\*With ESD protection function.

SOT-23 N Channel

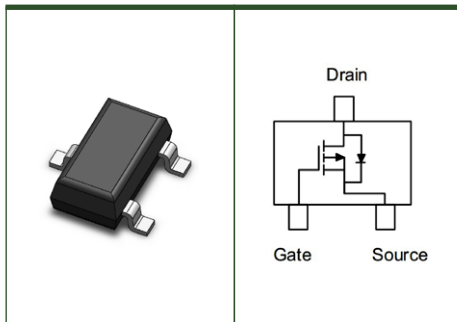


SOT-23 P Channel

Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
CTL043PS01-R3	-12	8	-4.3	-1.5	-	-	47	58	55	72	67	120	21	1.62	2.16	1176	276
CTL0322PS-R3	-20	8	-3.2	-0.9	-	-	55	75	70	95	100	130	18.6	3	1.5	650	16
CTL0402PS-R3	-20	8	-4	-1	52	62	60	72	70	91	90	120	20	2.8	2.5	745	21
CTL0422PS-R3*	-20	8	-4.2	-1	-	-	45	50	52	65	60	75	21	0.5	3	220	30
CTL0432PS-R3	-20	8	-4.3	-1.5	40	48	43	52	52	65	60	85	21	2.8	2.3	934	30.3
CTL046PS02E-R3*	-20	8	-4.6	-0.84	-	-	26	37	32	45	44	66	14	2.1	4.7	1500	160
CT2323-R3	-20	8	-4.7	-1	-	-	30	39	35	52	45	68	21	2.8	4.1	1773	148
CTL0262PS-R3	-20	12	-2.6	-0.9	-	-	76	95	97	120	140	180	10	2.4	2.2	1100	40
CT2301-R3	-20	12	-3	-0.9	-	-	85	100	100	150	-	-	7.61	1.1	1.95	640	70
CTL0302PS-R3	-20	12	-3	-0.9	-	-	70	100	85	150	-	-	7.61	1.1	1.95	640	59
CTL0372PS-R3	-20	12	-3.7	-1.5	-	-	50	65	67	85	86	110	24	3.2	3	730	24
CT2321-R3	-20	12	-3.8	-1.2	-	-	42	55	57	62	-	-	17.4	1.65	2.5	786	76
CTL0472PS-R3	-20	12	-4.7	-1	-	-	58	70	73	105	-	-	18.2	1.8	1.6	1100	85
CT3401-R3	-30	12	-4.1	-1.3	53	68	64	80	86	100	-	-	12.4	2.9	3.5	1320	72
CT3401A-R3	-30	12	-4.2	-1.3	33	50	38	60	51	85	-	-	12.4	2.9	3.5	1320	72
CTL0203PS-R3	-30	20	-2	-3	72	80	100	135	-	-	-	-	7.4	2	1	205	13
CTL0353PS-R3	-30	20	-3.5	-3	58	70	75	95	-	-	-	-	13.8	2.8	2.3	460	23
CTL0433PS-R3	-30	20	-4.3	-3	38	50	50	76	-	-	-	-	16.8	4.2	3.3	621	29
CTLM13PS05-R3	-50	20	-0.13	-2	-	-	5000	10000	-	-	-	-	-	-	-	30	5
CTLM16PS05-R3	-50	20	-0.16	-2	2000	5000	2000	6000	-	-	-	-	5.8	2.4	0.7	41.7	4
CTL0196PS-R3	-60	20	-1.9	-3	170	215	200	260	-	-	-	-	12.6	2.3	1.8	364	12

\*With ESD protection function.

SOT-23 P Channel





## SOT-26 N Channel

Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
CTL0702NS-R6*	20	12	7	1	-	-	17	22	21	28	24	33	12	1.9	4.6	305	30
CTL0383NS-R6*	30	12	3.8	1.4	48	60	54	70	75	100	-	-	4.7	1.9	1.6	247	5
CTL0503NS-R6*	30	20	5	3	23	28	32	42	-	-	-	-	5.7	3	2.1	370	21
CTL0513NS-R6	30	20	5.1	3	23	28	32	42	-	-	-	-	6.2	3.2	2.5	360	16
CTL019NS10-R6	105	20	1.9	3	230	270	276	340	-	-	-	-	6.6	2.8	3.6	297	31

\*With ESD protection function.

## SOT-26 Dual N Channel

Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
CT8205A-R6	20	12	6	1	-	-	22	33	28	36	-	-	7.5	3	2	580	62
CTL0343ND-R6	30	12	3.4	1.5	-	-	32	45	41	59	-	-	12.5	1.4	2.1	500	38

## SOT-26 Common Drain N-type

Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
CT8205S-R6	20	12	4.5	1	-	-	18	24	22	32	-	-	12	2	4	780	78
CTL0472ND-R6*	20	12	4.7	1	-	-	28	35	38	50	-	-	10.5	3.1	2.5	360	31
CT8205-R6	20	12	6	1	-	-	22	33	28	36	-	-	7.5	3	2	580	62
CT8205E-R6*	20	12	6	1	-	-	18	21	20.2	25	26	33	2.48	0.68	1.72	33	14.5

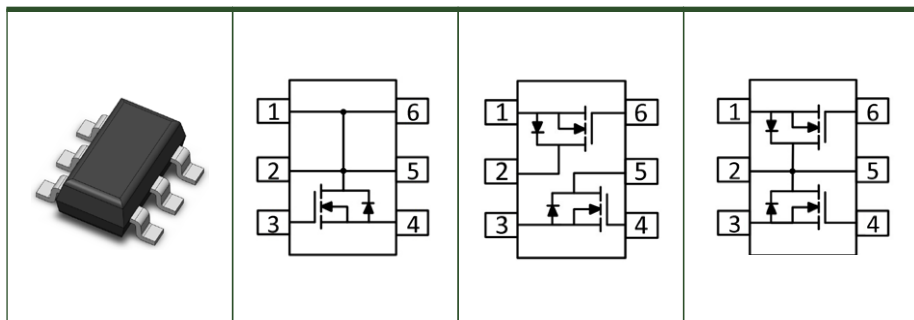
\*With ESD protection function.

SOT-26

N Channel

Dual N Channel

Common Drain N-type



**SOT-26 P Channel**

Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
<b>CTL0502PS-R6*</b>	-20	8	-5	-1.5	-	-	44	55	51	63	63	90	10.8	2.46	2.41	1310	277
<b>CTL0362PS-R6</b>	-20	12	-3.6	-1.4	-	-	50	65	67	85	-	-	12	3.2	3	730	24
<b>CTL0503PS-R6</b>	-30	20	-5	-3	33	40	36	52	-	-	-	-	12	4	4	822	40
<b>CTL0346PS-R6</b>	-60	20	-3.4	-3	65	80	75	100	-	-	-	-	11.4	4.8	4.6	958	35

\*With ESD protection function.

**SOT-26 Dual P Channel**

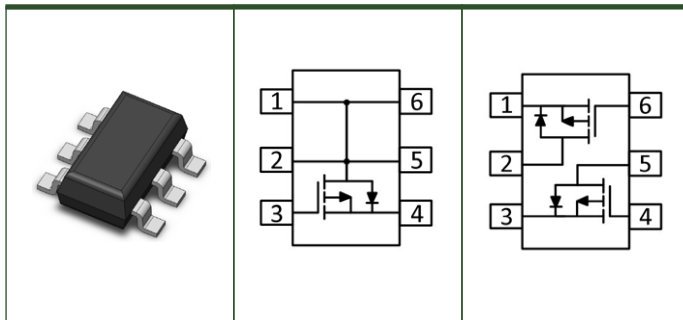
Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
<b>CTL0222PD-R6</b>	-20	12	-2.2	-1	-	-	100	140	130	170	180	220	7.65	1.95	1.1	640	59
<b>CTL0232PD-R6*</b>	-20	12	-2.3	-1	-	-	90	120	120	160	-	-	6.1	1.8	1.6	640	25
<b>CTL0302PD-R6</b>	-20	12	-3	-1.5	-	-	55	80	70	100	85	120	8.8	1.8	2.5	820	80
<b>CTL0363PD-R6</b>	-30	12	-4.1	-1.3	50	62	55	70	76	98	-	-	9.3	2.9	2.5	720	24
<b>CTL0313PD-R6</b>	-30	20	-3.1	-3	58	70	75	95	-	-	-	-	7	3	2.5	470	25

\*With ESD protection function.

**SOT-26**

**P Channel**

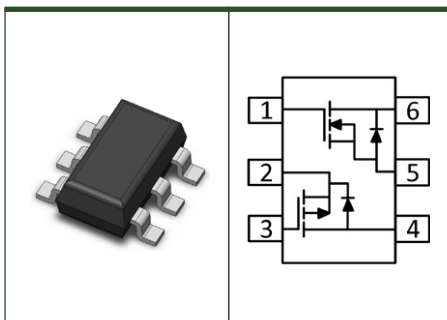
**Dual P Channel**



## SOT-26 N+P Channel

Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
CTL0342MD-R6	20	8	3.4	1.2	-	-	37	45	52	68	92	120	5.3	1.7	1.4	340	15
	-20	8	-2	-1	-	-	85	110	110	130	130	170	7.2	2.2	1.2	480	10
CTL0392MD-R6	20	8	3.9	1.2	-	-	40	48	55	70	100	130	5.2	1.5	1.2	321	14
	-20	8	-3.3	-1.2	-	-	56	70	70	92	90	120	9	2.4	1.9	745	21
CTL0232MD-R6	20	12	2.3	1.4	-	-	75	100	100	160	-	-	4.2	1.5	1	260	11
	-20	8	-1.9	-1	-	-	110	150	130	180	-	-	5.8	1.7	1.1	500	15
CTL0453MD-R6	30	20	4.5	3	22	35	33	52	-	-	-	-	6	2	2.5	360	17
	-30	20	-3.3	-3	55	70	75	95	-	-	-	-	7	4	3	450	20
CTL0383MD-R6	30	12	3.8	1.4	30	55	35	65	44	85	-	-	6.9	1.4	2.1	595	48
	-30	12	-2.5	-1.2	50	70	55	120	80	150	-	-	12.4	2.9	3.5	1320	72
CTL0313MD-R6	30	20	3.1	3	54	75	100	130	-	-	-	-	3.5	2.1	1.2	175	11
	-30	20	-3	-3	65	80	90	120	-	-	-	-	5.8	2.6	2	366	20

## SOT-26 N+P Channel



**SOT-523 N Channel**

Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
<b>CTLM90NS02E-R53*</b>	20	8	0.9	1.2	-	-	220	265	260	325	330	430	6.7	1.2	0.9	21	8
<b>CTLM19NS06E-R53*</b>	60	20	0.19	3	3000	5000	4000	5500	-	-	-	-	5.2	2.1	0.9	43	5

\*With ESD protection function.

**SOT-523 P Channel**

Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
<b>CTLM58PS02E-R53*</b>	-20	6	-0.58	-1.2	-	-	350	480	440	670	550	950	2.8	2.1	0.5	152	6

\*With ESD protection function.

**SOT-723 N Channel**

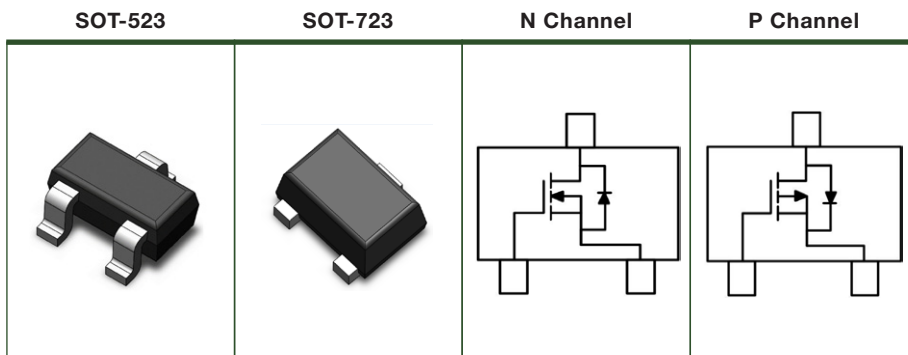
Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
<b>CTL013NS02E-R73*</b>	20	8	1.3	1.2	-	-	210	350	260	450	340	650	6.5	1.3	1.1	20	7.5

\*With ESD protection function.

**SOT-723 P Channel**

Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
<b>CTLM84PS02E-R73*</b>	-20	6	-0.84	-1.2	-	-	350	480	440	670	550	950	2.8	2.1	0.5	152	6

\*With ESD protection function.



## PDFN5060 N Channel

Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
CTL480NS03-PD56	30	20	48	3	8	10.5	13	18	-	-	-	-	28	5	6	850	45
CTL600NS03-PD56	30	20	60	3	5.2	6.5	8	11	-	-	-	-	19	7.5	9.8	1630	80
CTL690NS03-PD56	30	20	69	3	4.2	5	5.4	6.2	-	-	-	-	27	10.9	13.6	2732	258
CTL950NS03-PD56	30	20	95	3	2.1	2.6	3	3.9	-	-	-	-	49	16	22	4800	430
CTL970NS03-PD56	30	20	97	3	1.9	2.5	2.5	3.3	-	-	-	-	38	13	13	4833	445
CTLH15NS03-PD56	30	20	115	3	1.4	1.8	1.8	2.3	-	-	-	-	70	25	30	7430	378
CTL700NS04-PD56	40	20	70	2.5	5.5	6.5	6.9	8.5	-	-	-	-	16.2	3.85	6.05	1540	115
CTL770NS04-PD56	40	20	77	3	3.3	4	4.1	5.5	-	-	-	-	40.5	17.4	17.9	1429	242
CTLH00NS04-PD56	40	20	100	2.5	2.2	2.8	2.6	3.5	-	-	-	-	44.4	9.6	16	4940	170
CTL540NS06-PD56	60	25	54	4	6.8	8	-	-	-	-	-	-	111	37.7	34.8	1558	194
CTL180NS15-PD56	150	20	18	4	52	65	65	90	-	-	-	-	30	8.8	8	1790	82

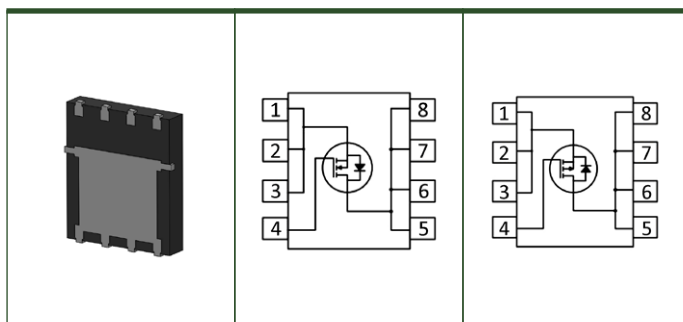
## PDFN5060 P Channel

Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
CTL600PS03-PD56	-30	20	-60	-2.5	7.1	8.5	11.5	14	-	-	-	-	35	10.8	10.6	3300	280
CTL900PS03-PD56	-30	20	-90	-2.2	3.5	4.5	5	7	-	-	-	-	108	15	17.4	6220	410
CTL465PS03-PD56	-30	25	-46.5	-2.5	7	11	11	18	-	-	-	-	53.8	11	12.6	1224	242

PDFN5060

N Channel

P Channel



**DFN2030 Common Drain N Type**

Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
CTL0802NC-D23* CTL2016-D23*	20	12	8	1	-	-	11.2	13.5	14	16.8	-	-	7.5	1	2	1500	122
CTL2004-D23*	20	12	10	1	-	-	7.5	9	10.5	12.6	-	-	14.7	2.1	5.3	1380	180

\*With ESD protection function.

**DFN3030 Common Drain N-Type (A)**

Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
CTL1002NC-D33* CTL8651-D33*	20	12	10	1.2	-	-	9.5	13	13	20	-	-	14.7	2.1	5.3	1400	200

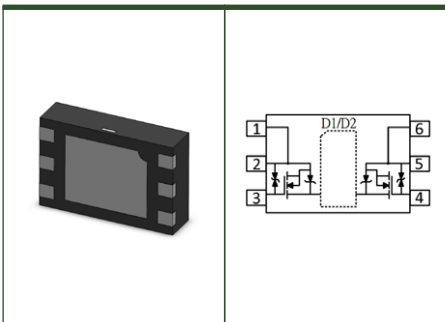
\*With ESD protection function.

**DFN3030 Common Drain N-Type (B)**

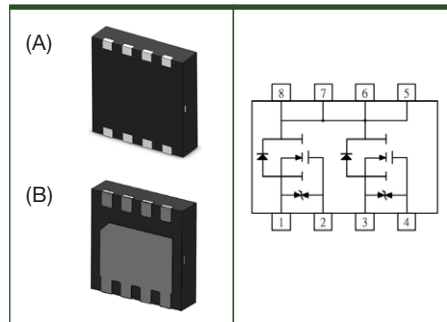
Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	I <sub>DS</sub> (A)	V <sub>GS(th)</sub> (V)	R <sub>DS(ON)</sub> , mΩ(Typ, Max)@V <sub>GS</sub> =								Q <sub>g</sub> (nC)	Q <sub>gs</sub> (nC)	Q <sub>gd</sub> (nC)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)
					10V		4.5V		2.5V		1.8V						
CTL0832NC-D33*	20	12	8.3	1.2	-	-	17	22	22	30	-	-	11	1.9	3	330	31
CTL1032NC-D33*	20	12	10.3	1.3	-	-	10.5	14	15	21	-	-	31	3.7	4.9	780	106
CTL1102NC-D33*	20	12	11	1	-	-	13	16	18	24	-	-	16.8	3	5.2	378	13.7

\*With ESD protection function.

**DFN2030 Common Drain N Type**



**DFN3030 Common Drain N Type**



## PDFN3030 N Channel

Part Number	$V_{DS}$ (V)	$V_{GS}$ (V)	$I_{DS}$ (A)	$V_{GS(th)}$ (V)	$R_{DS(ON)}$ , m $\Omega$ (Typ, Max)@ $V_{GS} =$								$Q_g$ (nC)	$Q_{gs}$ (nC)	$Q_{gd}$ (nC)	$C_{iss}$ (pF)	$C_{rss}$ (pF)
					10V		4.5V		2.5V		1.8V						
					7	8.5	12.5	16.5	-	-	-	-					
<b>CTL580NS03S-PD33*</b>	30	20	58	3	7	8.5	12.5	16.5	-	-	-	-	14.7	6.9	6.2	1560	187
<b>CTL710NS03-PD33</b>	30	20	71	3	5.8	7	8.5	10.5	-	-	-	-	18	7.7	8.8	1690	84
<b>CTL840NS03-PD33</b>	30	20	84	3	3.7	4.6	5.4	6.8	-	-	-	-	27	9.5	11	2450	129
<b>CTL980NS03-PD33</b>	30	20	98	2.2	2.9	3.6	4.1	5.1	-	-	-	-	35.6	15.1	17.5	1336	289
<b>CTL220NS06-PD33</b>	60	20	22	2.2	17	21	20	24	-	-	-	-	28	3.5	6.5	1680	85

\*With ESD protection function.

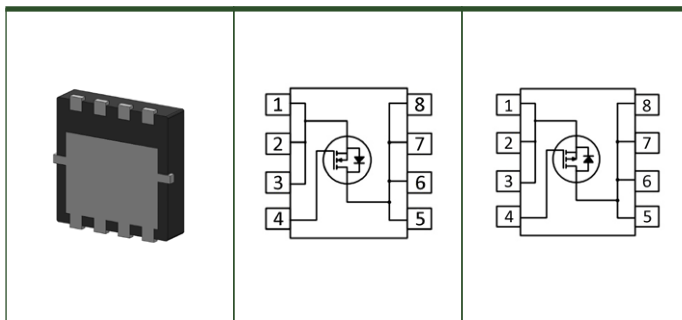
## PDFN3030 P Channel

Part Number	$V_{DS}$ (V)	$V_{GS}$ (V)	$I_{DS}$ (A)	$V_{GS(th)}$ (V)	$R_{DS(ON)}$ , m $\Omega$ (Typ, Max)@ $V_{GS} =$								$Q_g$ (nC)	$Q_{gs}$ (nC)	$Q_{gd}$ (nC)	$C_{iss}$ (pF)	$C_{rss}$ (pF)
					10V		4.5V		2.5V		1.8V						
					-	-	6	8	8	11	11	16					
<b>CTL550PS02-PD33</b>	-20	12	-55	-1	-	-	6	8	8	11	11	16	44.4	7.2	10.2	4060	400
<b>CTL515PS03-PD33</b>	-30	20	-51.5	-3	10	13	13	17	-	-	-	-	35	13	17	3090	305

PDFN3030

N Channel

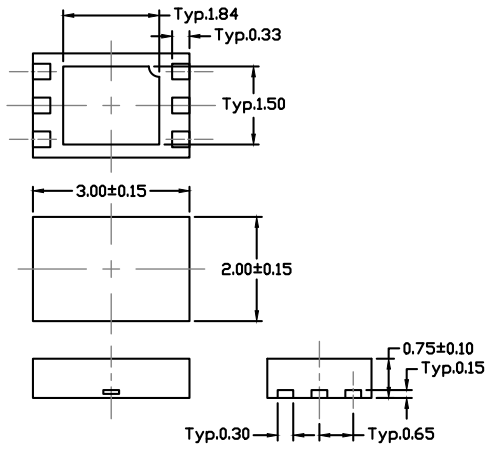
P Channel



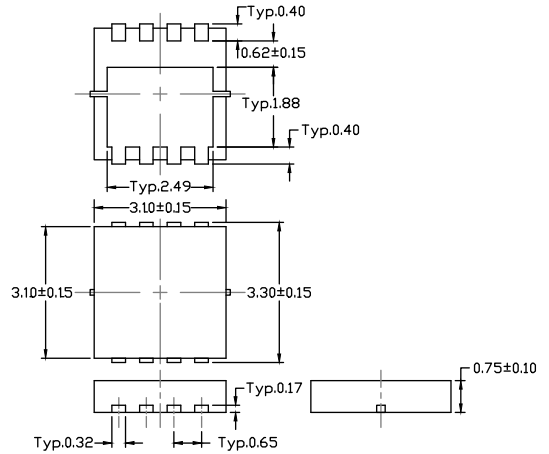
Package Outline Drawing

Dimensions in "mm"

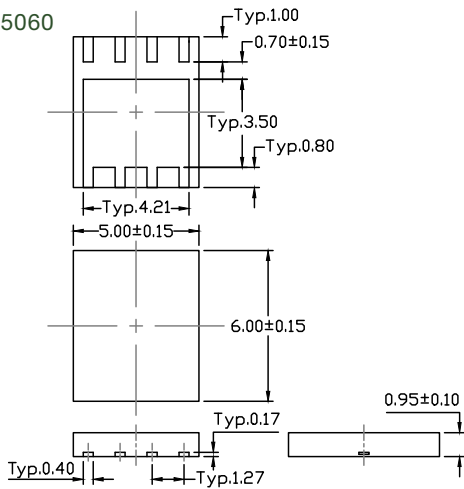
DFN2030



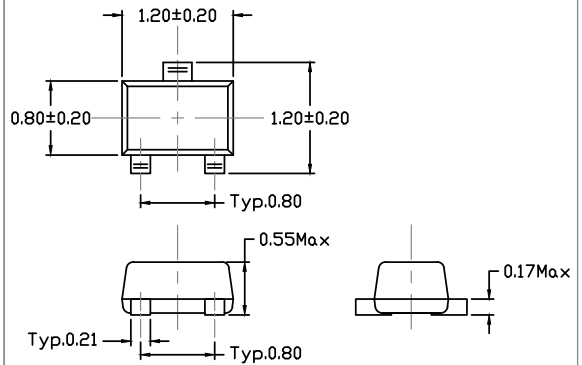
PDFN3030



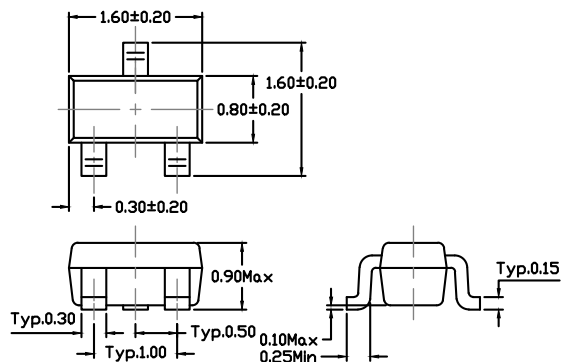
PDFN5060



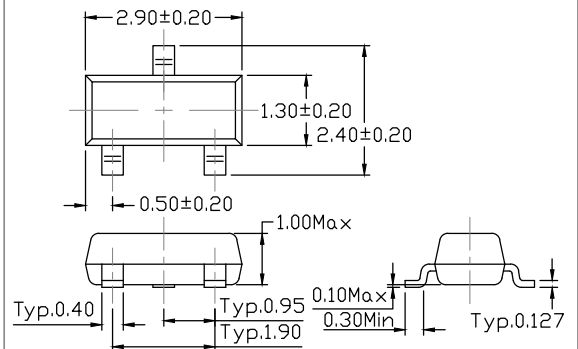
SOT-723



SOT-523



SOT-23

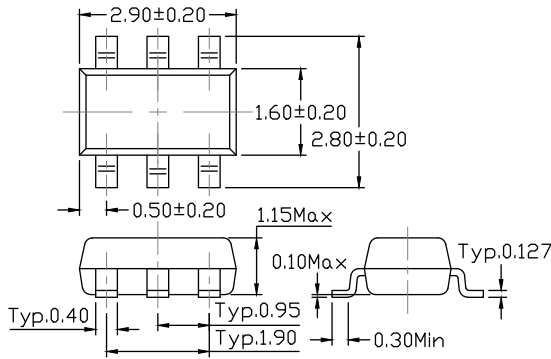




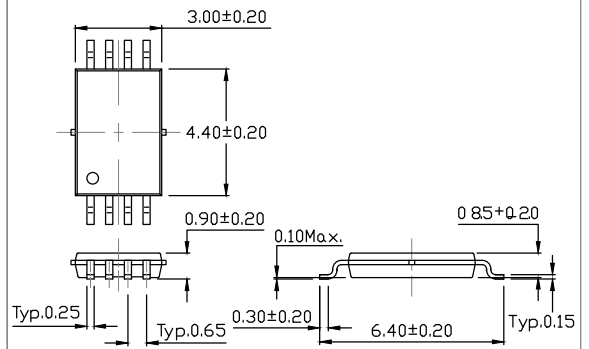
Package Outline Drawing

Dimensions in "mm"

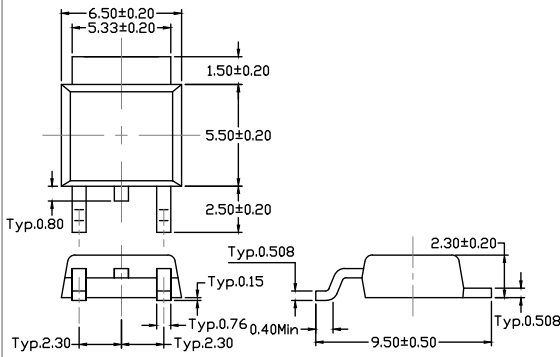
SOT-26



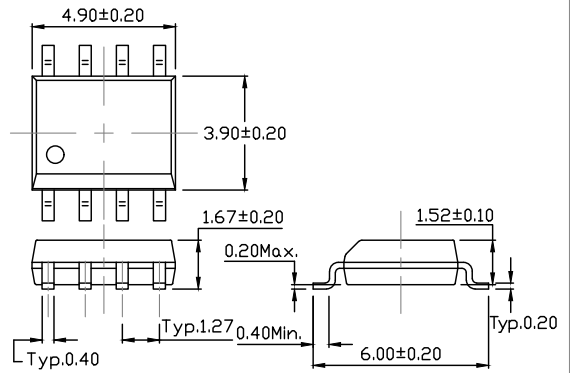
TSSOP-8



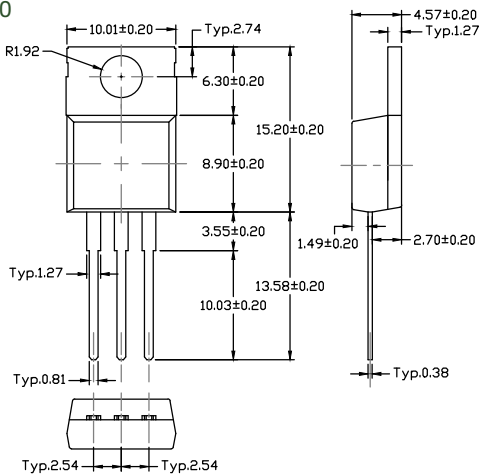
TO-252



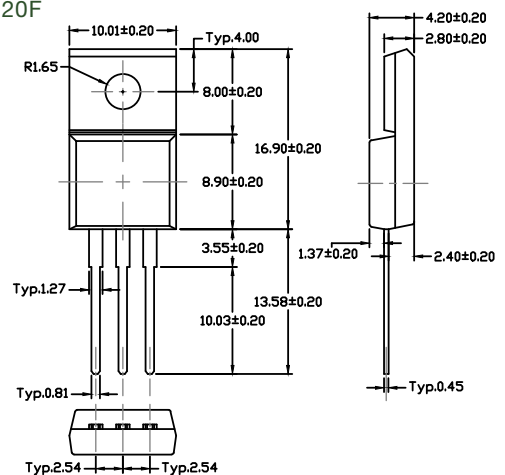
SOP-8



TO-220



TO-220F



**Notice :**

The content of this Catalogue is provided for information and reference only.

Please note that the product specifications list only a selection of key parameters.

CT Mirco may at any time make changes on the specifications, appearance, properties and materials whenever necessary without prior notice.

Please contact with CT Micro sales or one of our authorized distributors should you need more information on any of the products listed here.

---

[www.ct-micro.com](http://www.ct-micro.com)

---



[www.ct-micro.com](http://www.ct-micro.com)



### Malaysia

F-3A-3A, Jalan C180/1,  
Dataran C180, 43200 Selangor,  
Malaysia  
TEL: +60 3 9082 3333  
FAX: +60 3 9082 1021

### Taiwan

8F, No.87, Zhongcheng Rd.,  
Tucheng Dist., New Taipei City 23674,  
Taiwan  
TEL: +886 2 22684958  
FAX: +886 2 22684959

### Shenzhen

1203- 1204, Block A,  
Jiabin Road, City Square Complex,  
Luohu District, Shenzhen 518001,  
China  
TEL: +86 755 61620062  
FAX: +86 755 61620061

### Korea

#4206, Ma-Dong,  
Chungang Circulation Complex,  
1258, Guro 2-Dong, Guro-Gu,  
Seoul, Korea 08217  
TEL: +82 10 3160 6399

### Germany

Weipertstrasse 8 – 10,  
74076 Heilbronn,  
Germany  
TEL: +49 7131 7669 310

### USA

5900 South Lake Forest Drive,  
Suite 300, Mckinney, Texas 75070,  
USA  
TEL: +1 469 931 5089

CT Micro International Corporation is a Customer oriented and Technology driven company who is dedicated in Design, Manufacturing, Marketing & Sales (DM<sup>2</sup>S) of Optoelectronic components, Discrete Semiconductor, and its related products in world-wide market.

