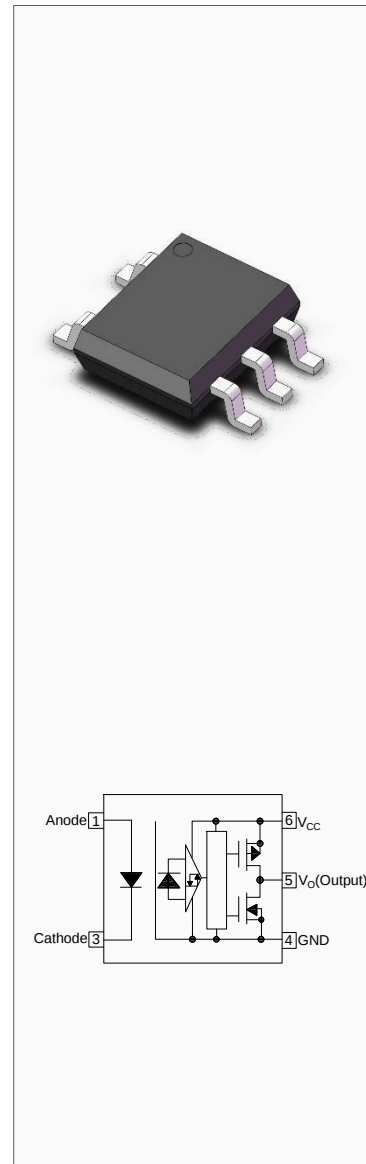




The products are gate driver opto-couplers in the SOP5 package. The device consists of an infrared LED optically coupled to an integrated high-gain, high-speed photodetector IC chip. It provides guaranteed performance and specifications at temperature up to 110 °C. It is physically smaller and compliant with international safety standards for reinforced insulation. It thus provides a smaller footprint solution for applications that require safety standard certification. An internal noise shield provides a guaranteed common-mode transient immunity of $\pm 35 \text{ kV}/\mu\text{s}$. It is ideal for small class IGBT and power MOSFET gate drive. The products are widely used in industrial inverters, IGBT gate drivers, MOSFET gate drivers, induction cooktop and home appliances.



0.1A maximum peak output current
High isolation 3750 VRMS
Buffer logic type
Operating temperature range -40°C to 110°C
REACH & RoHS compliance
HBM: H3A; MM: M4; CDM: C3
CQC approved
VDE approved
UL approved

Input	LED	Output
H	ON	H
L	OFF	L

(Temperature=25°C)

LED	Forward Current	I_F	50	mA
	Peak Forward Current	I_{FP}	1	A
	Reverse Voltage	V_R	6	V



	Power Dissipation	P_D	100	mW
Detector	Output Voltage	V_O	30	V
	Supply Voltage	V_{CC}	30	V
	Power Dissipation	P_C	400	mW
Isolation Voltage		V_{iso}	3750	Vrms
Operating Temperature		T_{opr}	-40~110	
Junction Temperature		T_j	125	
Storage Temperature		T_{stg}	-55~125	
Total Power Dissipation		P_{tot}	500	mW
Soldering Temperature		T_{sol}	260	



			$V_F=0.8V$, $I_O=6.5mA$	-	0.047	0.4	V
	Threshold Input Current	I_{FLH}	$V_{CC}=15V$, $V_O=1V$	-	1.2	5	mA
	Threshold Input Voltage	V_{FHL}	$V_{CC}=15V$, $V_O=1V$	0.8	-	-	V
	Supply Voltage	V_{CC}	-	4.5	-	30	V

Propagation Delay Time to High Output Level	t_{PLH}	$R_g=47\Omega$, $C_g=3nF$, $I_F=0 \rightarrow 5mA$, $V_{CC}=30V$	35	-	120	

ns



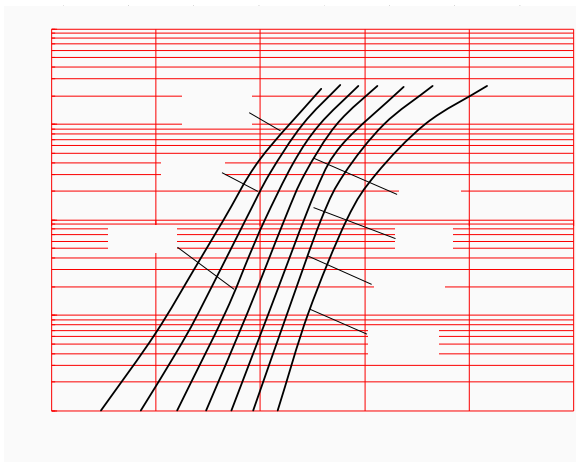
Input On-state Current	$I_{F(ON)}$	7	-	15	mA
Input Off-state Voltage	$V_{F(OFF)}$	0	-	0.8	V
Supply Voltage	V_{CC}	4.5	-	30	V
Operating Frequency	f	-	-	25	kHz



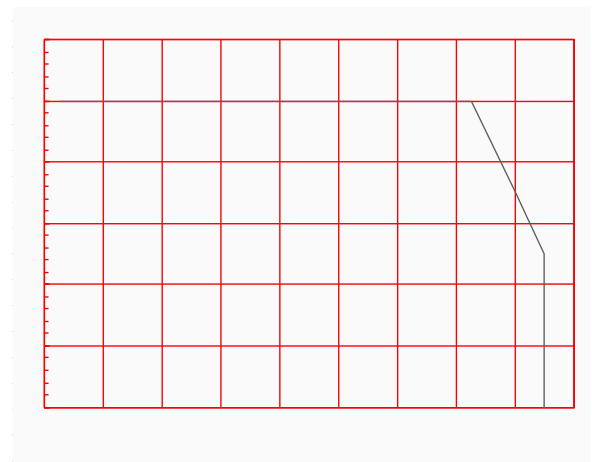
J OC D C 0 C B -M5 /



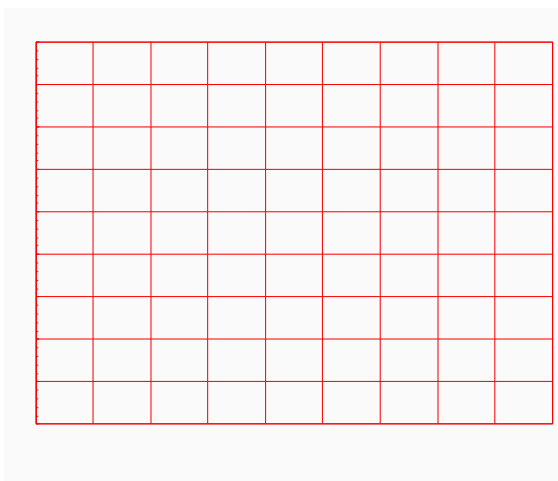
Forward Current vs. Forward Voltage



Max. Allowable LED Forward Current vs. Ambient Temperature



Collector Power Dissipation vs. Ambient Temperature

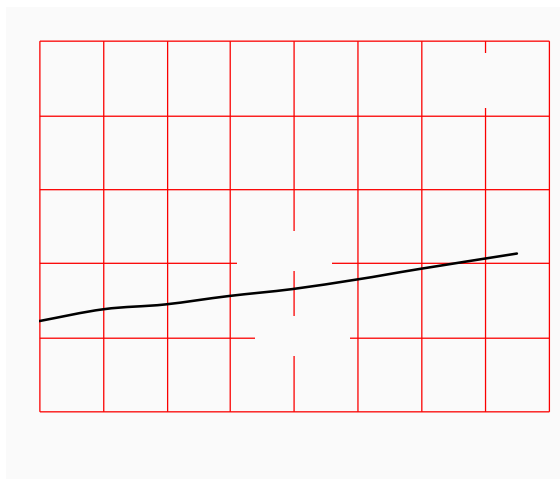


Threshold Input Current vs. Ambient Temperature

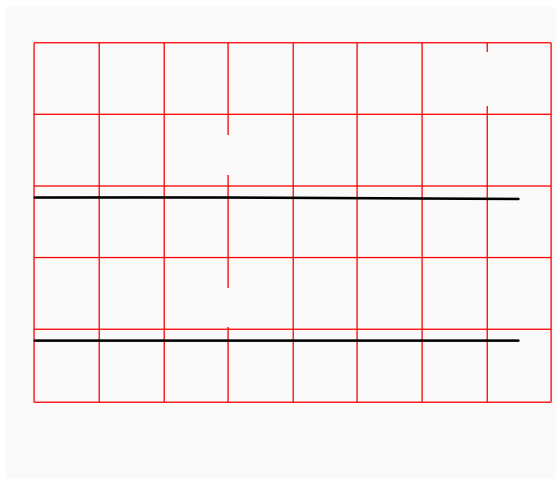
$\geq$ γ



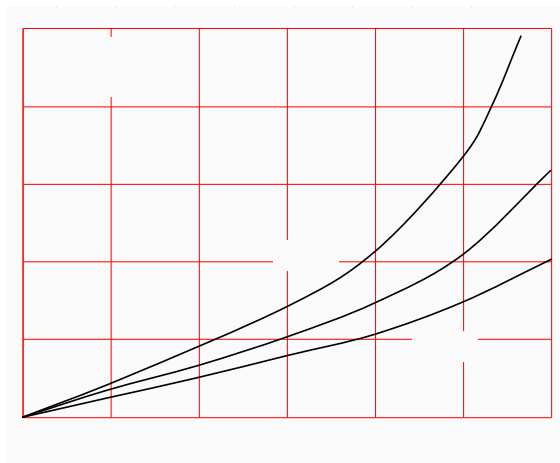
Low-level Output Voltage vs. Ambient Temperature



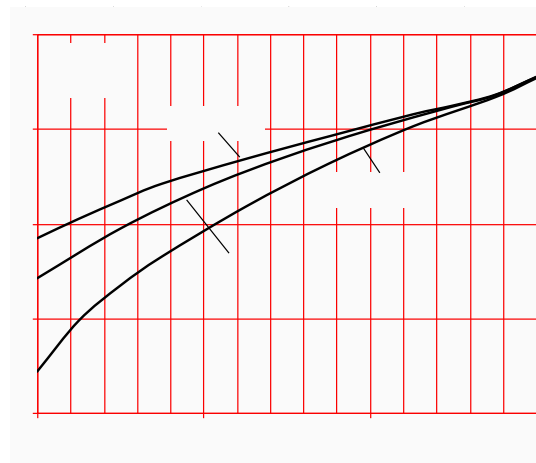
High-level Output Voltage vs. Ambient Temperature



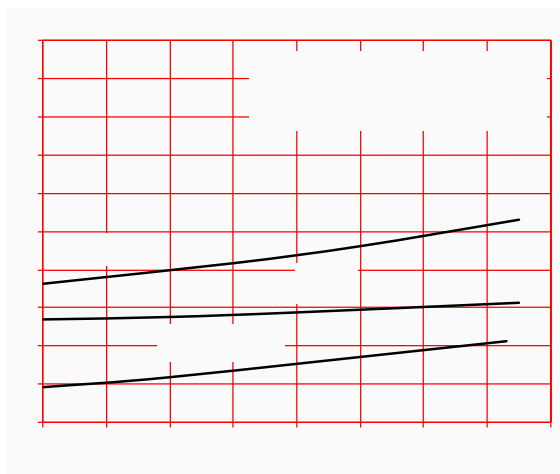
Low-level Output Voltage vs. Peak Low-level Output Current



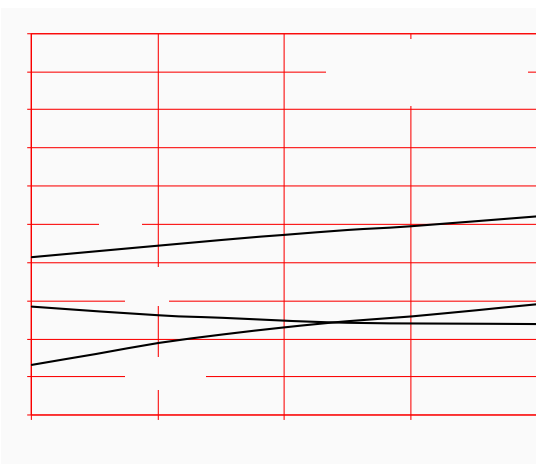
High-level Output Voltage Drop vs. Peak High-level Output Current

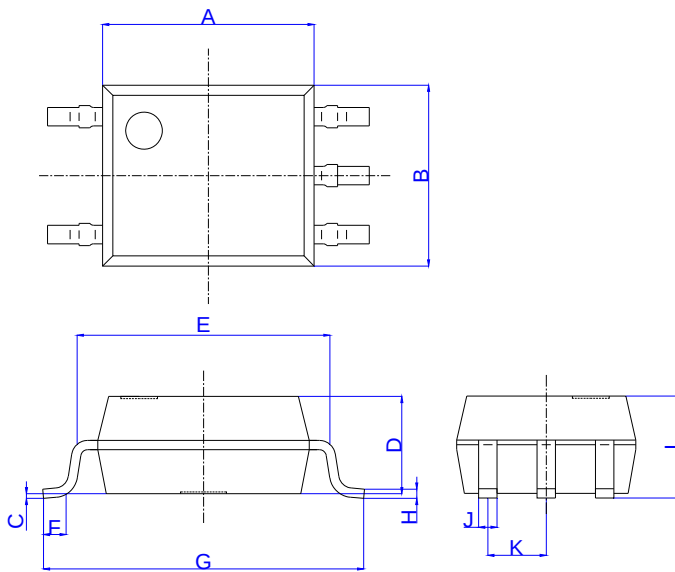


Propagation Delay Time,Pulse Width Distortion vs. Ambient Temperature

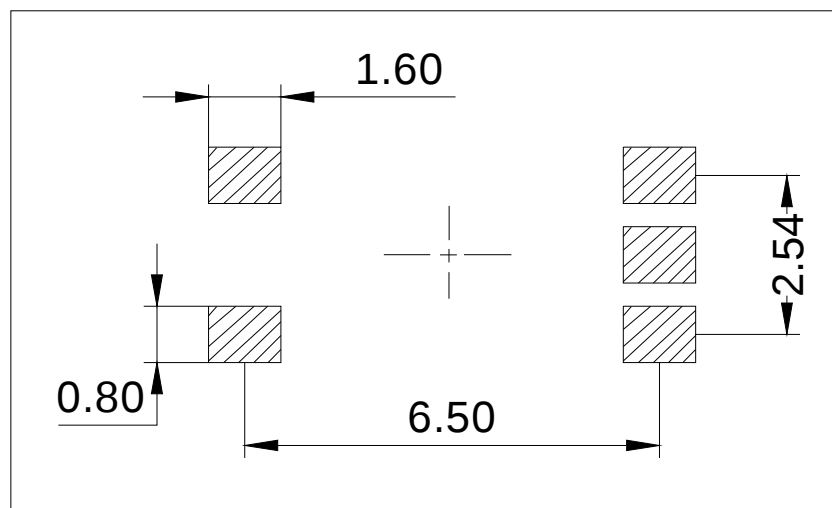


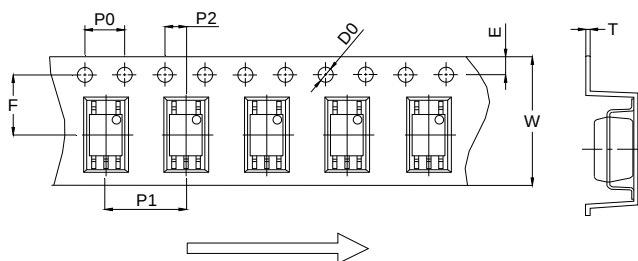
Propagation Delay Time,Pulse Width Distortion vs. Forward Current



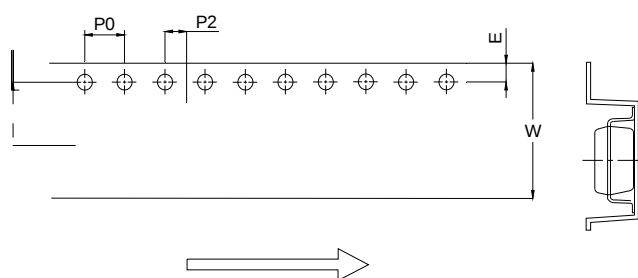


Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.80	0.173		0.189
B	3.60		4.20	0.142		0.165
C	0.00		0.20	0.000		0.008
D	1.90		2.30	0.075		0.091
E	5.00		5.60	0.197		0.220
F	0.34		0.94	0.013		0.037
G	6.70		7.30	0.264		0.287
H	0.10		0.30	0.004		0.012
I	2.00		2.40	0.079		0.094
J	0.25		0.55	0.010		0.022
K	1.02		1.52	0.040		0.060





Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
D0		1.50	1.60		0.059	0.063
P0	3.90	4.00	4.10	0.154	0.157	0.161
P1	7.90	8.00	8.10	0.311	0.315	0.319
P2	1.90	2.00	2.10	0.075	0.079	0.083
E	1.65	1.75	1.85	0.065	0.069	0.073
F	4.40	4.50	4.60	0.173	0.177	0.181
T	0.25	0.30	0.35	0.010	0.012	0.014
W	11.90	12.00	12.30	0.469	0.472	0.484





Note:

1. Reflow soldering is recommended at the temperatures and times shown, no more than three times.
2. Avoid direct contact between the epoxy body and any tools or surfaces exceeding its maximum storage temperature.
3. Application of pressure on the epoxy body is prohibited at elevated temperatures. In specific scenarios, any applied force must not exceed 2.5N.
4. Ensure the component has cooled to ambient temperature before proceeding with any subsequent manufacturing steps.
5. The component has a shelf life of one year when stored under standard conditions.
6. Recommend storage Temp.: 0~5℃ Moisture Vacuum Atmosphere Wavelength m