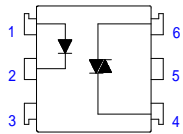


Schematic:



For dimensions and pin-outs, see the last page of this document.

Features:

1. Compact dual-in-line package.
2. 400V peak blocking voltage.
3. 5mA max trigger current
3. Isolation voltage between input and output (Viso:5300Vrms).

Ordering:

Suffix to Standard Part Number

- V = VDE Compliant
- G = 10mm Lead Spread
- S = Surface Mount Lead-form
- T = Tape & Reel
- MOC3009, 10, 11, 12
- MOC3020, 21, 22, 23

Equivalents:

This part equals/exceeds all specifications of:

Absolute Maximum Ratings:

	Parameter	Symbol	Rating	Unit
Input	Forward current	I_F	50	mA
	Peak forward current	I_{FM}	1	A
	Reverse voltage	V_R	6	V
	Power dissipation	P_D	70	mW
Output	Off-State Output Terminal voltage	V_{DRM}	400	V_{PEAK}
	On-State R.M.S. Current	$I_{T(RMS)}$	100	mA
	Peak Repetitive Surge Current (PW=10ms.DC 10%)	I_{TSM}	1	A
	Power dissipation	P_D	300	mW
	Total power dissipation	P_{TOT}	330	mW
	Isolation voltage 1 minute	V_{ISO}	5300	V_{RMS}
	Operating temperature	T_{opr}	-40 to +85	°C
	Storage temperature	T_{stg}	-40 to +150	°C
	Soldering temperature 10 second	T_{sol}	260	°C

Electrical Characteristics:

	Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	V_F	$I_F=10mA$	-	1.2	1.4	V
	Peak forward voltage	V_{FM}	$I_{FM}=0.5A$	-	-	3.5	V
	Reverse current	I_R	$V_R=4V$	-	-	10	uA
Output	Peak Blocking Current	I_{DRM}	$V_{DRM}=400V$	-	-	100	nA
	ON-State Voltage	V_{TM}	$I_{TM}=100mA$	-	1.6	3	V
Transfer characteristics	Holding Current	I_H		-	0.1	-	mA
	Critical rate of rise of OFF-state voltage	dV/dt	$V_{DRM}=(1/\sqrt{2})*Rated$	600	-	-	V/uS
	Isolation resistance	R_{ISO}	DC500V	5×10^{10}	10^{11}	-	ohm
	Minimum trigger current	I_{FT}	Main Terminal Voltage=3V	-	-	5	mA
	Turn-on time	T_{on}	$V_D=6V, R_L=100ohm, I_F=20mA$	-	-	100	uS

Fig.1 Forward Current vs. Ambient Temperature

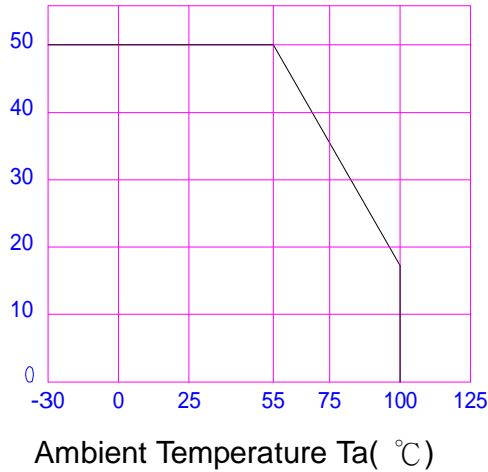


Fig.2 Diode Power Dissipation vs. Ambient Temperature

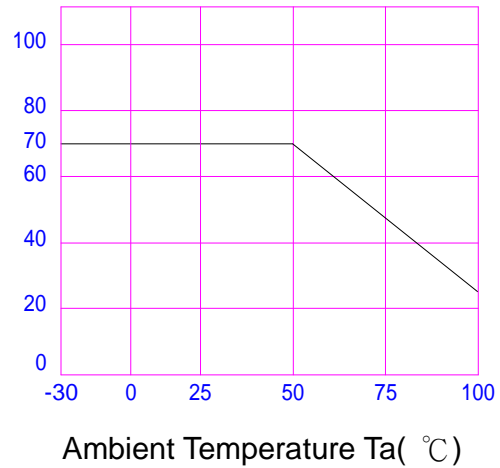


Fig.3 On-State R.M.S. Current vs. Ambient Temperature

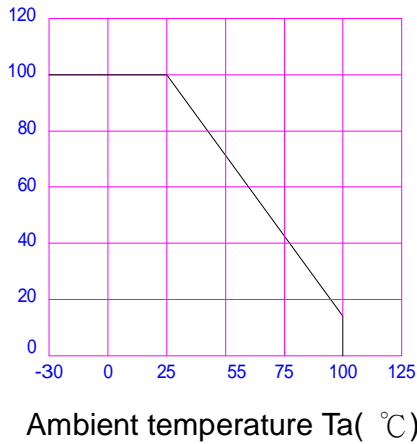


Fig.4 Total Power Dissipation vs. Ambient Temperature

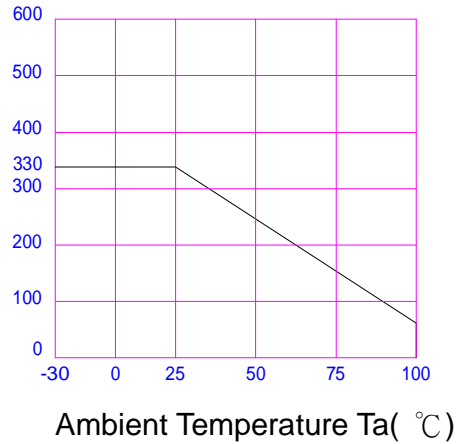


Fig.5 Peak Forward Current vs. Duty Ratio

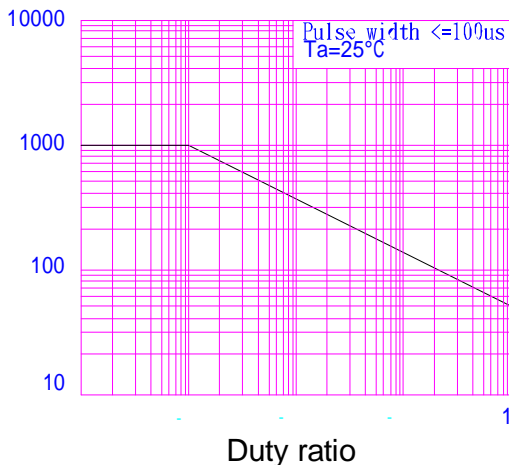


Fig.6 Forward Current vs. Forward Voltage

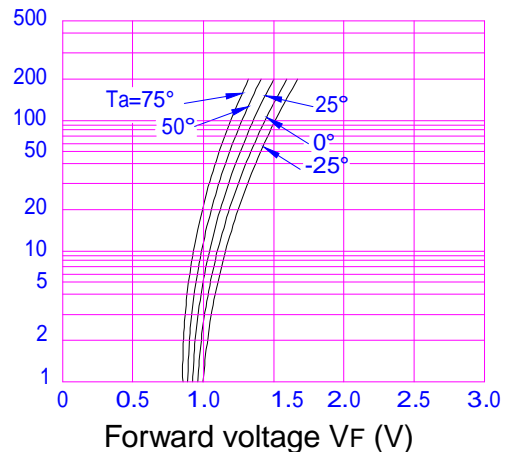
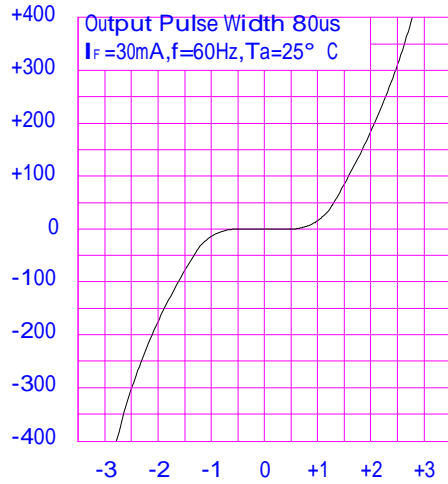
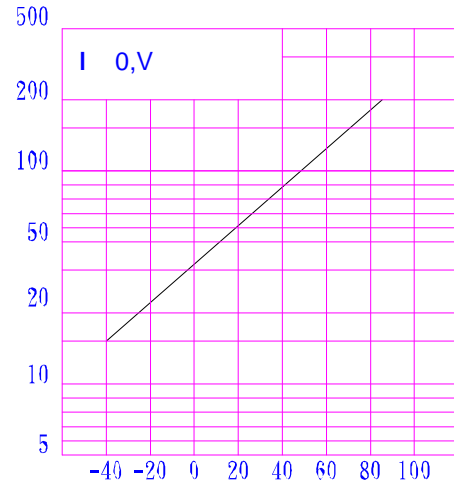


Fig.7 On-State Characteristics



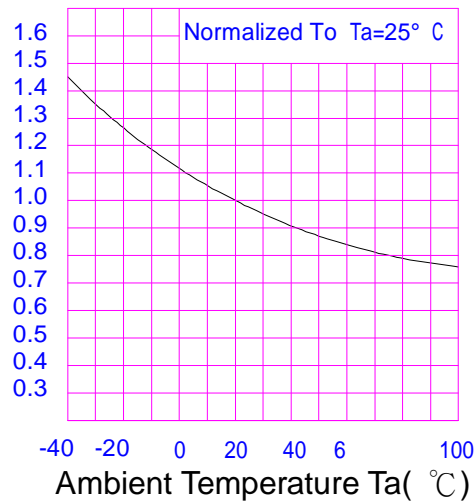
On-State Voltage(V)

Fig.8 Leakage with LED off vs. Ambient Temperature



Ambient Temperature T_a (°C)

Fig.9 Trigger Current vs. Ambient Temperature



Ambient Temperature T_a (°C)

Fig.4 : 6-pin DIP type

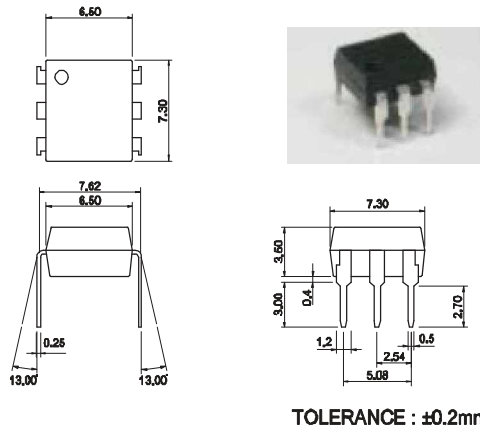


Fig.5 : 6-pin SMD type

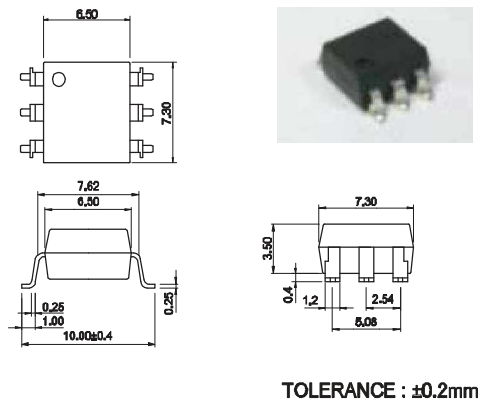


Fig.6 : 6-pin G type

