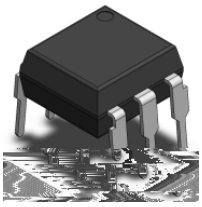
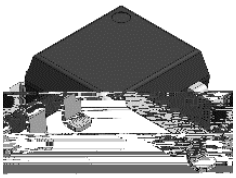
JOC308X Series

Rev.A.1.0

DESCRIPTION:

The products are 6-pin thyristor opto-couplers. The device combines an AIGaAs infrared emitting diode as the emitter which is optically coupled to a monolithic silicon zero-crossing photo triac in a plastic DIP6 package with different lead forming options. The products are widely used in solenoid/valve controls, lighting controls, motor controls, temperature controls, static AC power switches, solid state relays, interfacing microprocessors up to 265 V_{AC} peripherals.







MAIN FEATURES

High isolation 5000 VRMS
DC input with zero-crossing photo triac output
Operating temperature range -55 ł wr 443 ł
UHDFK) UrKV frpsoldqfh
HBM: K6D› P P- M4; CDM: C3
CQC approved
VDE approved
UL approved

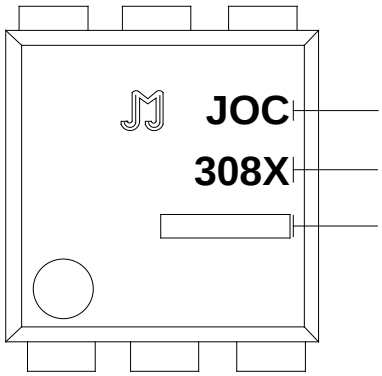
ABSOLUTE MAXIMUM RATINGS (Temperature=25°C)

Parameter		Symbol	Value	Unit
Input	Forward Current	I_F	50	mA
	Peak Forward Current	I_{FP}	1	A
	Reverse Voltage	V_R	6	V
	Power Dissipation	P_D	75	mW
Output	Off-state Output Terminal Voltage	V_{OFF}	800	V
	Peak On−state Current (100μs pulse, 120 pps)	I_{TP}	2	A
	On-state RMS Current	$I_{T(RMS)}$	100	mA
	Peak Repetitive Surge Current (P_W=10 ms)	I_{TSM}	1.2	A
	Output Power Dissipation	P_O	250	mW
Total Power Dissipation		P_{tot}	325	mW
Isolation Voltage		V_{iso}	5000	Vrms

Operating Temperature	T_{opr}	-55~110

ORDERING AND MARKING INFORMATION

MARKING INFORMATION



: Company Abbr.
: Part Number & Rank
Production Information Code

Characteristics Curves

FIG.1: Max. Allowable LED Forward Current vs. Ambient Temperature

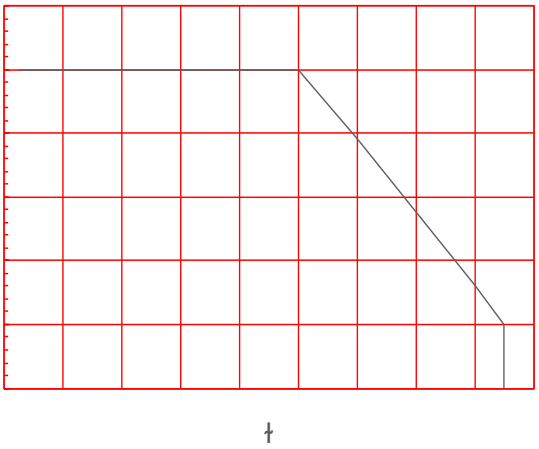


FIG.2: On-state Terminal Current vs. Ambient Temperature

FIG.7: Normalized On-state Terminal Voltage vs. Ambient Temperature

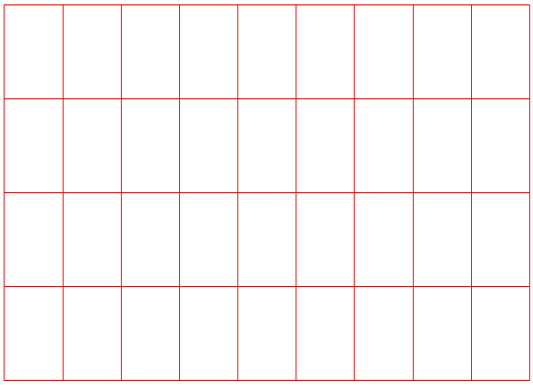


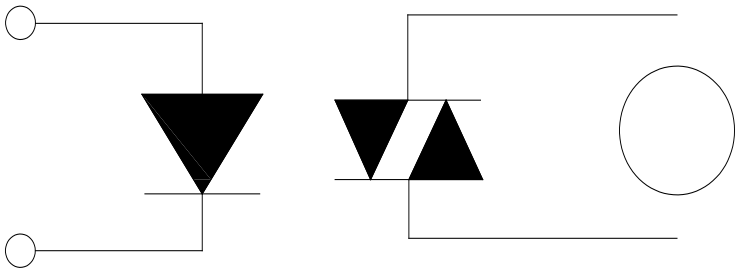
FIG.8: On-state Terminal Voltage vs. On-state Terminal Current

TEST CIRCUITS

FIG.12: Test Circuits of Turn On Time

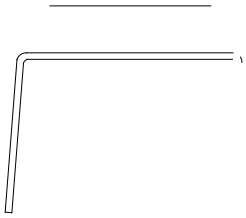
FIG.13: Waveforms of Turn On Time

Fig.14: Test Circuits of dV/dt



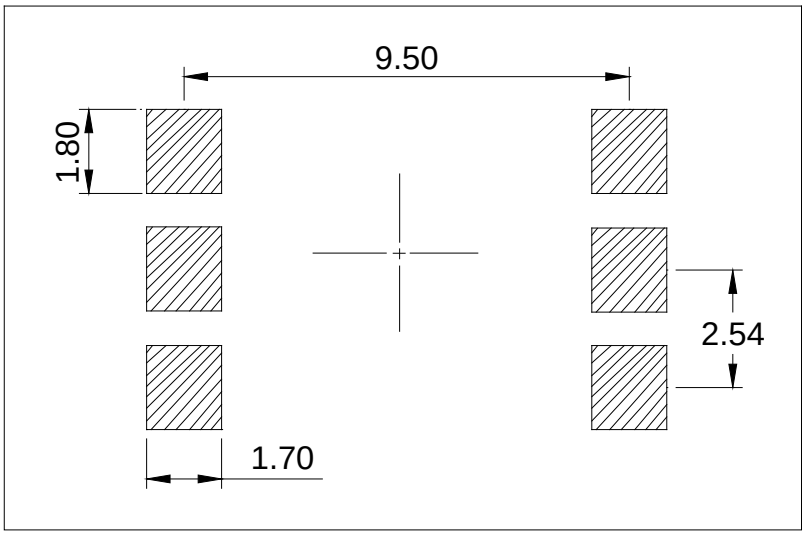
Package Dimension (Unit: mm)

Standard DIP Type:



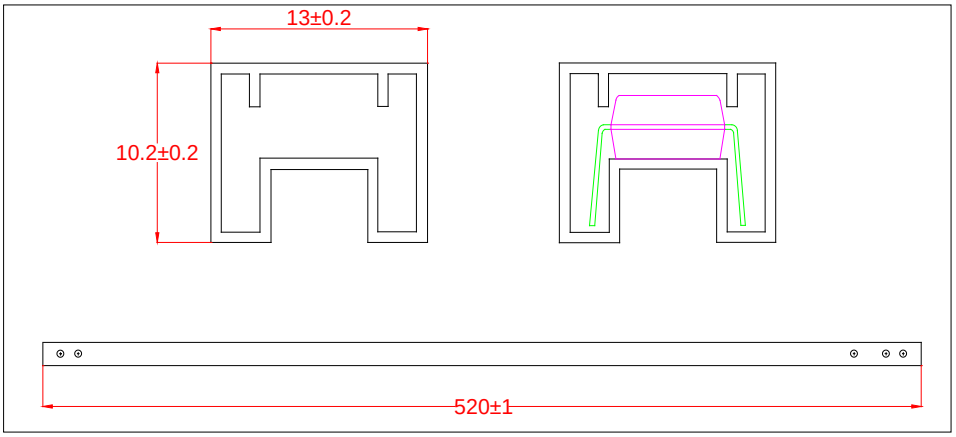
RECOMMENDED SOLDER MASK (Dimensions in mm unless otherwise stated)

Option SMD



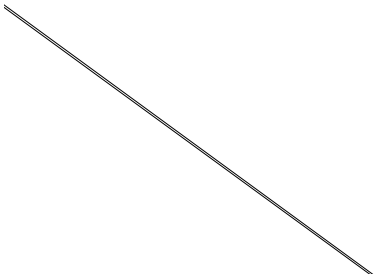
TUBE SPECIFICATIONS (Dimensions in mm unless otherwise stated)

Standard DIP



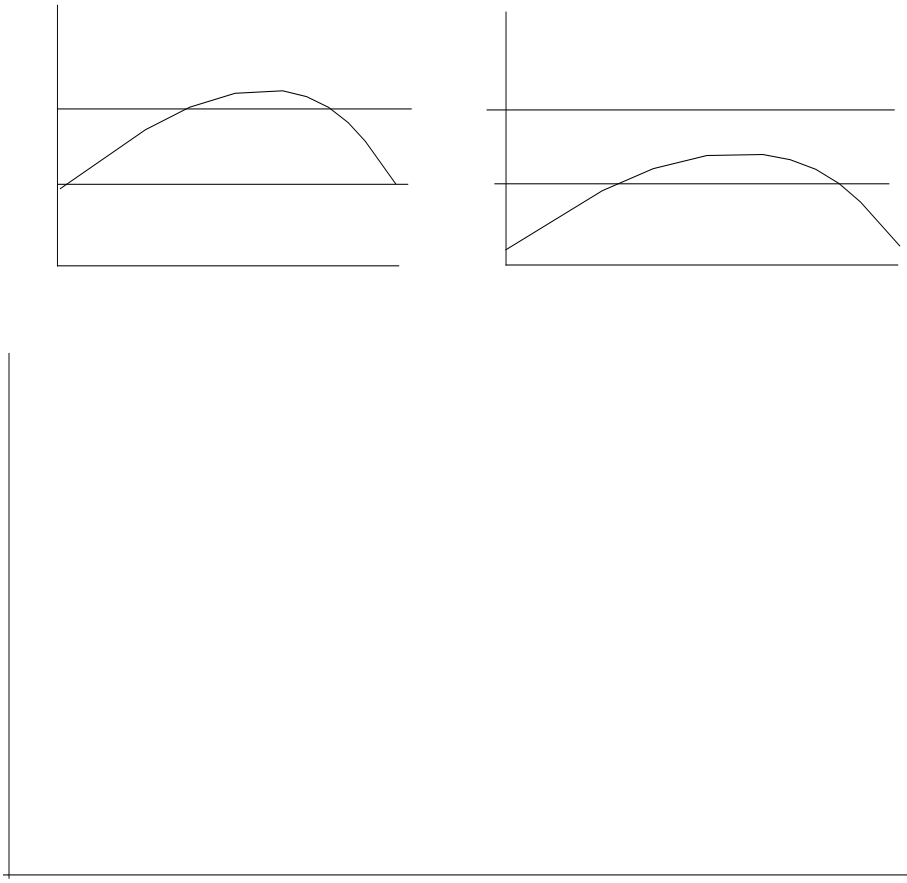
CARRIER TAPE SPECIFICATIONS (Dimensions in mm unless otherwise stated)

Option T1



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	11.90	12.00	12.10	0.469	0.472	0.476
P2	1.90	2.00	2.10	0.075	0.079	0.083
E	1.65	1.75	1.85	0.065	0.069	0.630
F	7.40	7.50		0.291	0.295	
T	0.35	0.40		0.014	0.016	
W	15.70	16.00	16.30	0.618	0.630	0.642

REFLOW INFORMATION



WAVE SOLDERING

HAND SOLDERING BY SOLDERING IRON	
Soldering Temperature	360 ± 5