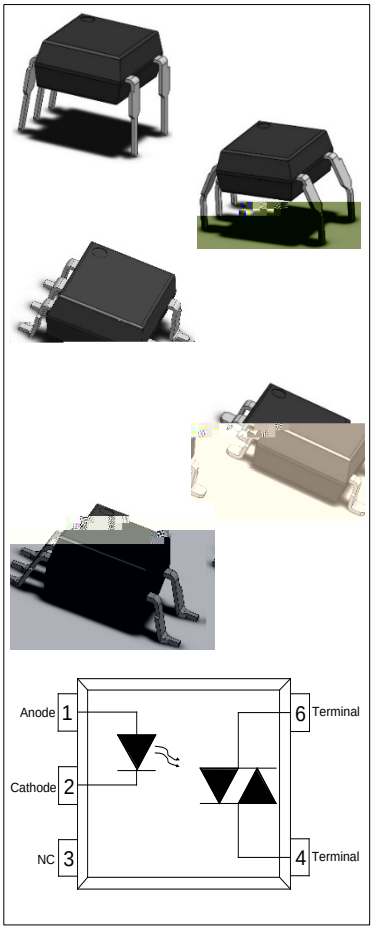
JOC301XD5 Series

Rev.A.1.1

DESCRIPTION:

The JOC301XD5 series combine an AIGaAs infrared emitting diode as the emitter which is optically coupled to a monolithic silicon random-phase photo triac in a plastic DIP5 package with different lead forming options. With the robust coplanar double mold structure, JOC301XD5 series provide the most stable isolation feature. 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 120 V_{AC} peripherals.



MAIN FEATURES

High isolation 5000 VRMS
DC input with random-phase photo triac output
Operating temperature range -55

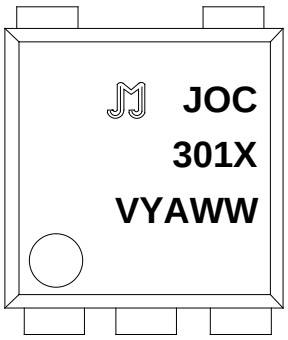
HBM:
CQC approved
VDE approved
UL approved

ABSOLUTE MAXIMUM RATINGS (Temperature=25°C)

Parameter		Symbol	Value	Unit
Input	Forward Current	I_F	60	mA
	Reverse Voltage	V_R	6	V
	Junction Temperature	T_j	125	
	Input Power Dissipation	P_I	100	mW
	Power Dissipation Derating (T_a 25)	P_D/	-1.33	mW/
Output	Off-state Output Terminal Voltage	V_{OFF}	250	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	A

ORDERING AND MARKING INFORMATION

MARKING INFORMATION



JOC : Company Abbr.
301X : Part Number & Rank
V :

ORDERING INFORMATION

JOC301XD5(Y)(Z)-GV

JOC – Company Abbr.
301X – Part Number (0/1/2)
D5 – DIP5 Package
Y – Lead Form Option (M/S/SL/SLM/None)
Z – Tape and Reel Option (T1)
G – Green Option (G or None)
V – VDE Option (V or None)

Packing Quantity

Option	Quantity	Quantity – Inner box	Quantity –Outer box
None/M	65 Units/Tube	32 Tubes/Inner box	10 Inner box/Outer box =20.8k Units
S(T1)	1000 Units/Reel	3 Reels/Inner box	5 Inner box/Outer box =15k Units
SL(T1)	1000 Units/Reel	3 Reels/Inner box	5 Inner box/Outer box =15k Units
SLM(T1)	1000 Units/Reel	2 Reels/Inner box	5 Inner box/Outer box =10k Units

Characteri (c)137(om)]TJ/TT2 1 T0 0 Tc 2/TT2 1 T0 0c (a)β)-w 9 0 2 (a)-7(i)1m Bottom-0006Tc 1002 Tw 14

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

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

TEST CIRCUITS

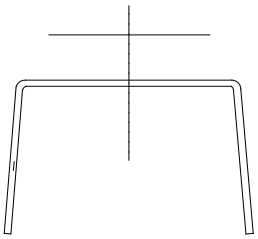
FIG.12: Test Circuits of Turn On Time

FIG.13: Waveforms of Turn On Time

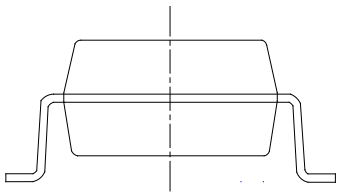
Fig.14: Test Circuits of dV/dt

Package Dimension (Unit: mm

Standard DIP Type:

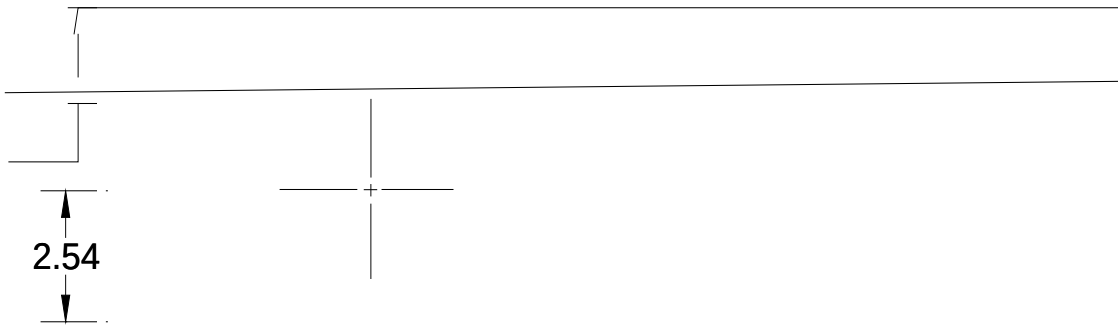


Option S Type:



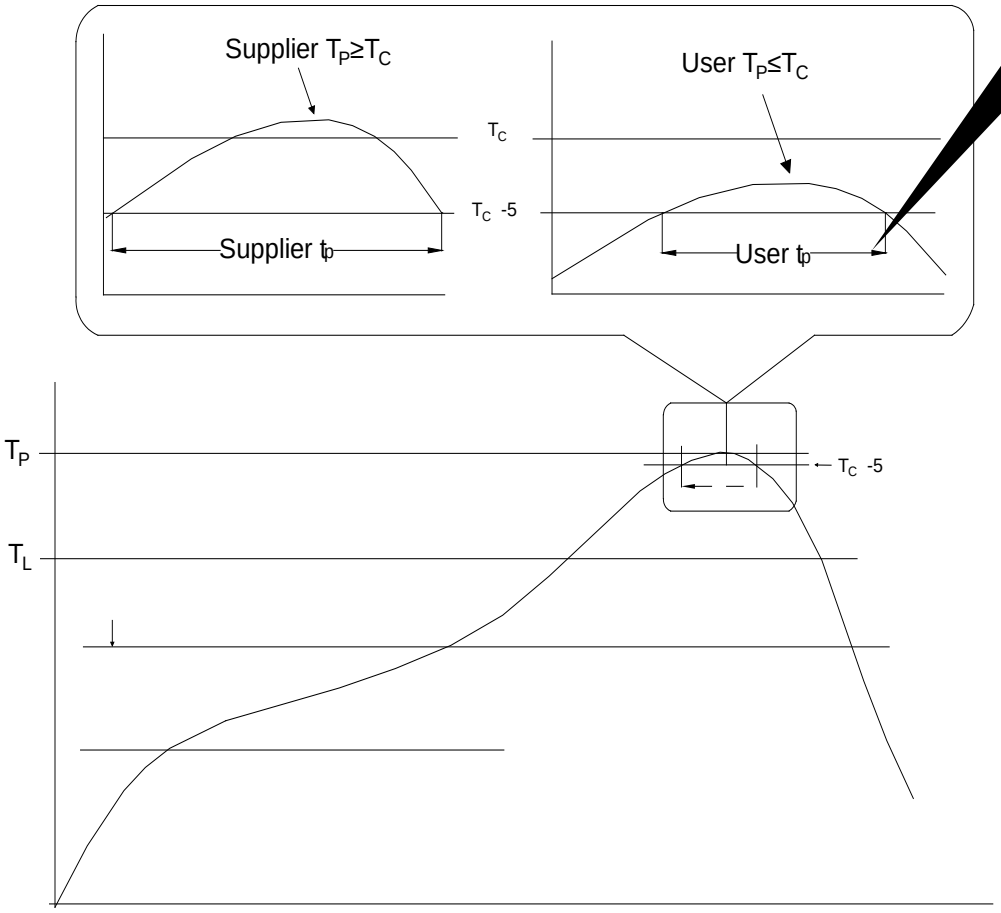
Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	6.30		6.70	0.248		0.264
B	6.92		7.32	0.272		0.288
C	11.60		12.10	0.457		0.476
D	3.30		3.70	0.130		0.146
E	7.32		7.92	0.288		0.312
F			0.30			0.012
G						
H	0.60			0.020		
I	1.10		1.30	0.043		0.051
J	3.45		3.85	0.136		0.152
K						

Option SL



CARRIER TAPE SPECIFICATIONS (Dimensions in mm unless otherwise stated)

REFLOW INFORMATION



Document Revision History

Date	Revision	Changes
Apr.2, 2025	A.1.0	Last update
Nov.5, 2025	A.1.1	Add S&SLM package

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