



JOC305X Series

Rev.A.1.1

DESCRIPTION:

The JOC305X series combine an AlGaAs infrared emitting diode as the emitter which is optically coupled to a monolithic silicon random-phase photo triac in a plastic DIP6 package with different lead forming options. With the robust coplanar double mold structure, JOC305X 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 265 V_{AC} peripherals.

MAIN FEATURES

High isolation 5000 VRMS

DC input with random-phase photo triac output

Operating temperature range -55 °C ~ 125 °C

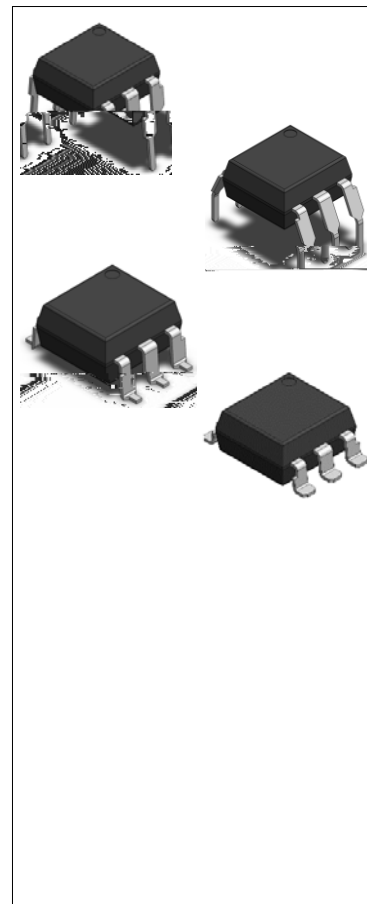
ULDFK) UrKV fr p soldqfh

HBM: K6D > P P= P 7

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 °C)	P _D /	-1.33	mW/
Output	Off-state Output Terminal Voltage	V _{OFF}	600	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

MA205N1 (F)4 (N6 2 0 Td[IN)-11)-28(OV (R)87(MA)41 (T))-23[A

Characteristics Curves

FIG.1: Forward Current vs. Ambient Temperature

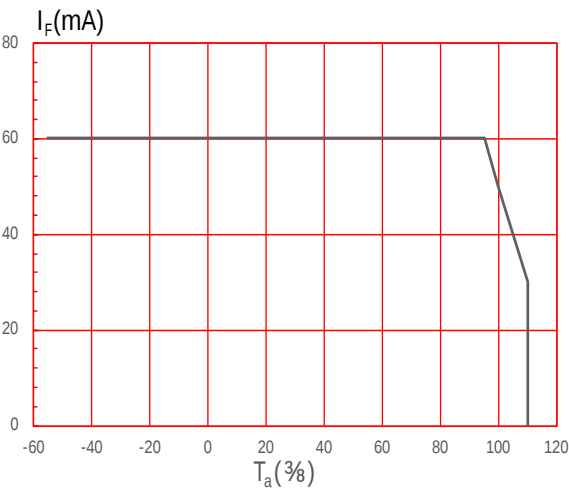


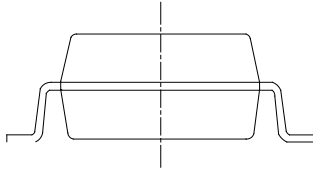
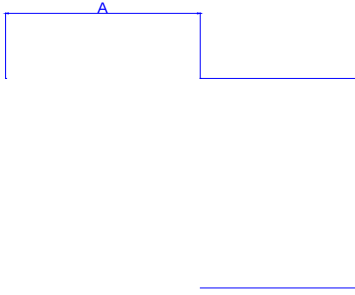
FIG.2: On-state Terminal Current vs. Ambient Temperature

TEST CIRCUITS

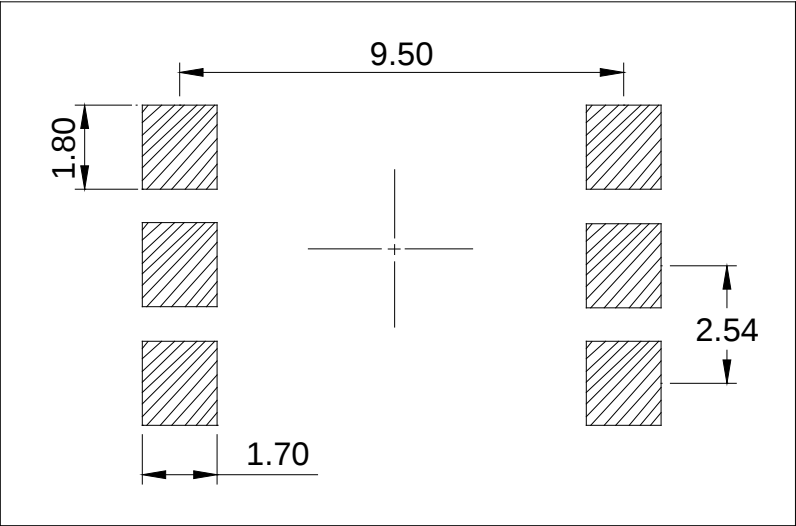
FIG.12: Test Circuits of Turn On Time

FIG.13: Waveforms of Turn On Time

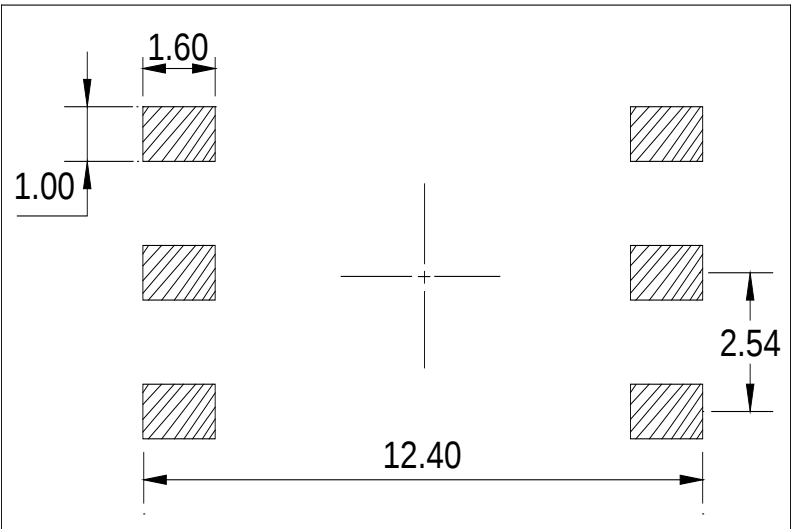
Option SLM Type:



Option SL

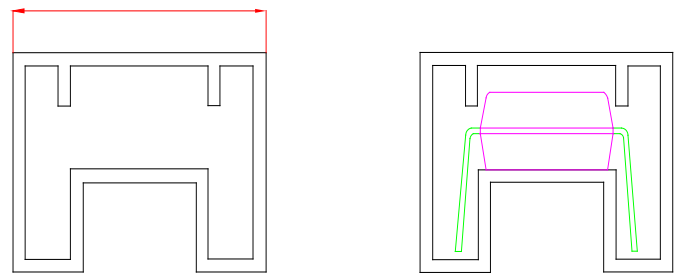


Option SLM



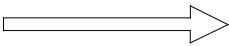
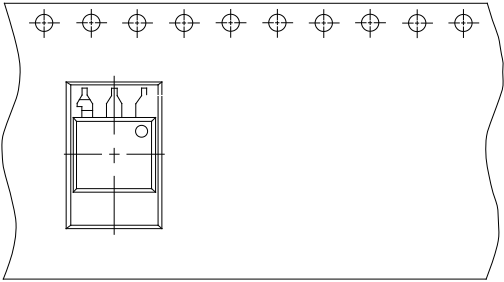
TUBE SPECIFICATIONS (Dimensions in mm unless otherwise stated)

Standard DIP

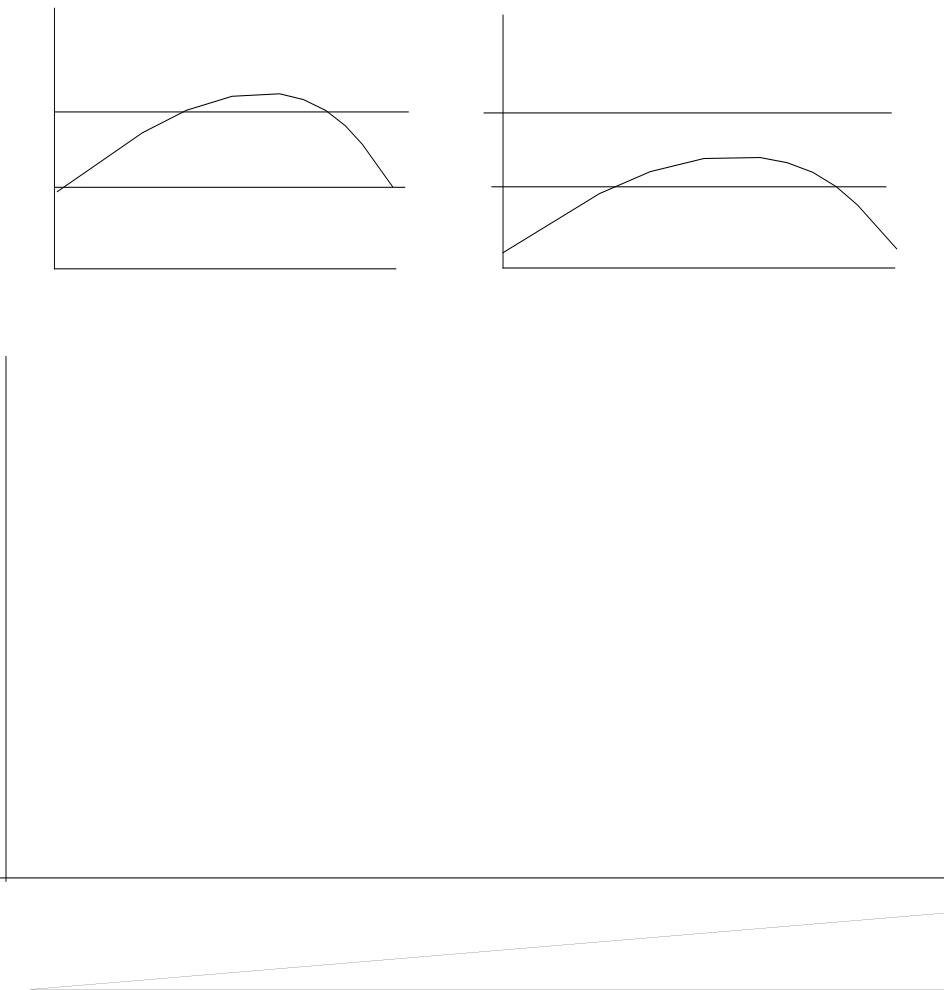


CARRIER TAPE SPECIFICATIONS (Dimensions in mm unless otherwise stated)

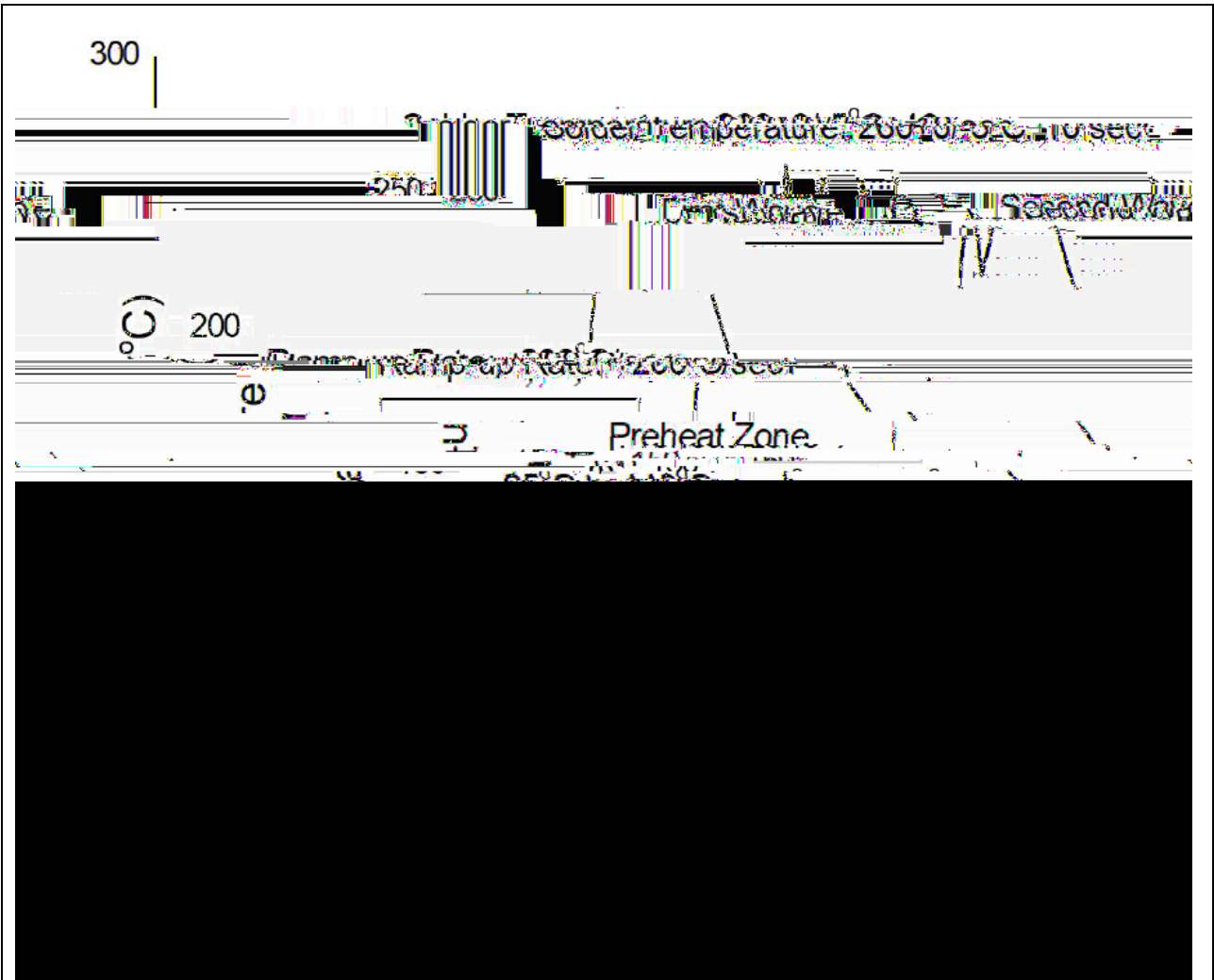




REFLOW INFORMATION



WAVE SOLDERING



HAND SOLDERING BY SOLDERING IRON	
Soldering Temperature	360 ± 5
Soldering Time	3s max.

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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