JOCSR21X,JOCSR31X-D5P/S Series

Rev.A.1.0

Total Power Dissipation	P_{tot}	325	mW
Isolation Voltage	V_{iso}	5000	Vrms
Operating Temperature	T_{opr}	-55~110	
Junction Temperature	T_j	125	
Storage Temperature	T_{stg}	-55~125	
Soldering Temperature	T_{sol}	260	
Peak pulse voltage (T_j=25 ; non-repetitive,off-state)	V_{pp}	1	kV

NOTE1: μ

NOTE2:

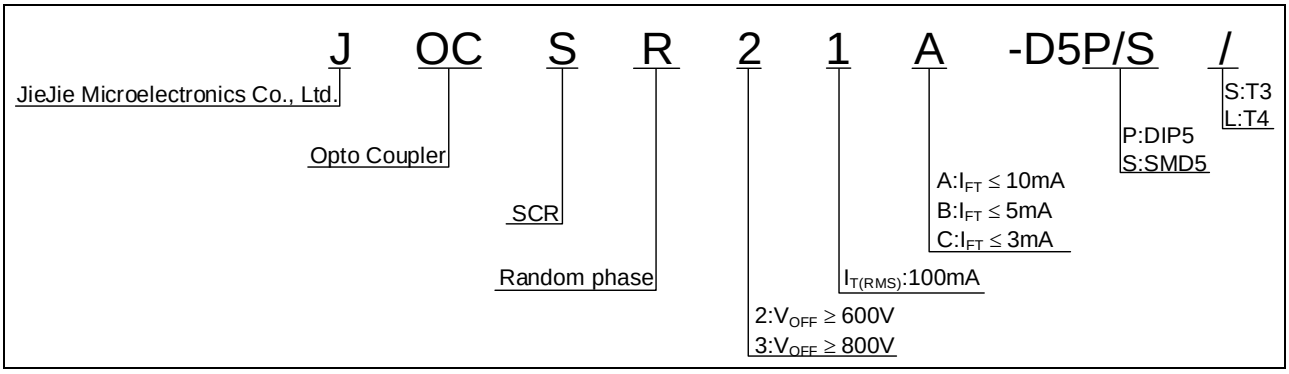
ELECTRICAL CHARACTERISTICS (Temperature=25°C)

Parameter			Symbol	Condition	Min.	Typ.	Max.	Unit
Input	Forward Voltage		V_F	I_F=10mA	-	1.2	1.5	V
	Reverse Current		I_R	V_R=6V	-	-	1	μA
	Input Capacitance		C_{in}	V=0, f=1kHz	-	10	-	pF
Output	Peak Off-state Current, Either Direction		I_{OFF}	V_{OFF}=Rated V_{OFF} I_F=0	-	-	100	nA
	Peak On-state Voltage, Either Direction		V_{TM}	I_{TM}=100mA	-	1.8	2.5	V
	Critical Rate of Rise of Off-state voltage		dV/dt	V_{PEAK}= Rated V_{PEAK} I_F=0	2000	-	-	V/μs
Transfer Characteristics	LED Trigger Current	JOCSR21A JOCSR31A	I_{FT}	Terminal Voltage=3V I_{TM}=100mA	-	-	10	mA
		JOCSR21B JOCSR31B			-	-	5	
		JOCSR21C JOCSR31C			-	-	3	
	Holding Current		I_H	I_{TM}=2mA, I_F=Rated I_{FT}	-	500	-	μA
	Isolation Resistance		R_{ISO}	DC500V 40~60%R.H.	10^{12}	10^{14}	-	Ω
	Floating Capacitance		C_{IO}	V=0, f=1MHz	-	5	-	pF
	Response Time		t_{on}	V_D=6V, R_L=100Ω, I_F=20mA	-	15	50	μs

NOTE3:

NOTE4:

ORDERING INFORMATION



Packing Quantity	
Option	**Quantity**

MARKING

JOCSR21X,JOCSR31X

TEST CIRCUITS

FIG.12: Test Circuits of Turn On Time

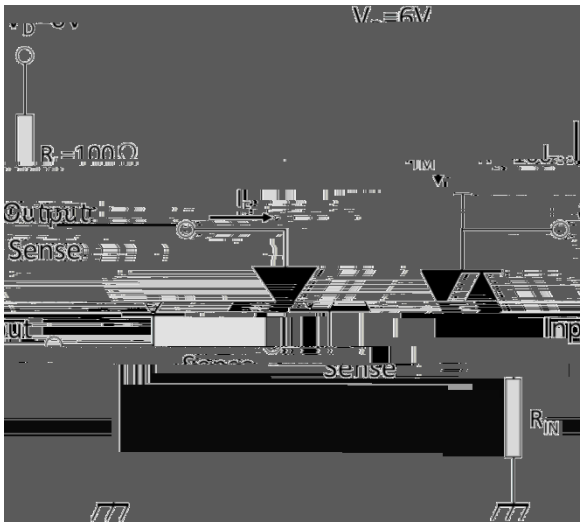


FIG.13: Waveforms of Turn On Time

Fig.14: Test Circuits of dV/dt

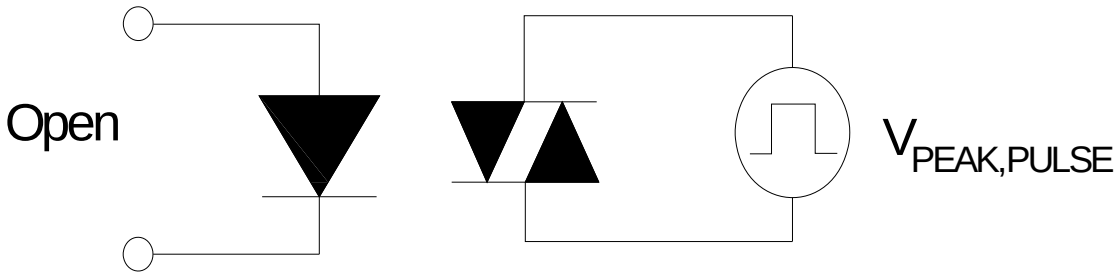
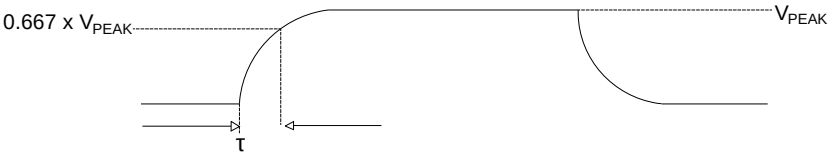


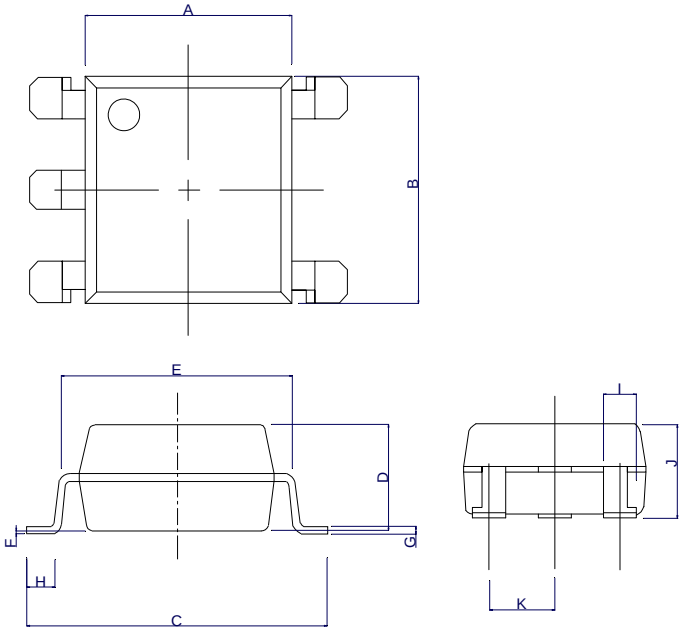
Fig.15: Waveforms of dV/dt



$$dV/dt = \frac{0.667 \times V_{PEAK}}{\tau}$$

FIG.16: Test circuit for inductive and resistive loads to IEC-61000-4-5

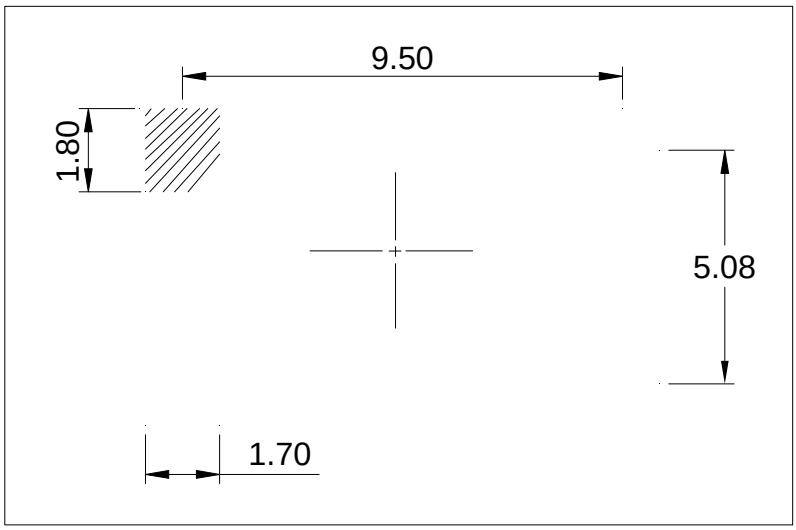
Option SMD Type:



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	6.20		6.60	0.244		0.260
B	6.92		7.32	0.272		0.288
C	9.50		10.50	0.375		0.413
D	3.20		3.60	0.126		0.142
E	7.32		7.92	0.288		0.312
F	0.05		0.35	0.002		0.014
G	0.16		0.36	0.006		0.014
H	0.60		1.40	0.024		0.055
I	0.90		1.50	0.035		0.059
J	3.30		3.90	0.130		0.154
K	2.29		2.79	0.090		0.110

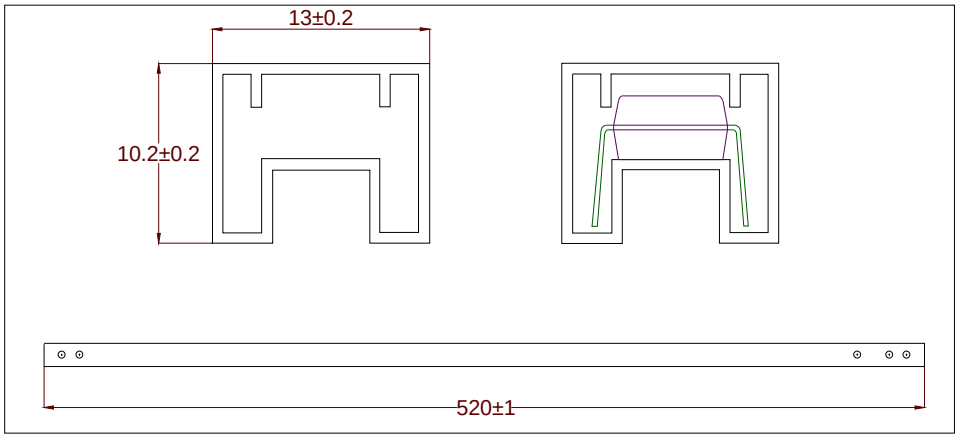
RECOMMENDED SOLDER MASK (Dimensions in mm unless otherwise stated)

Option SMD



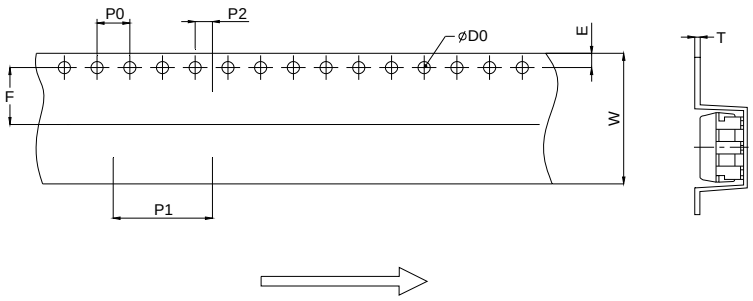
TUBE SPECIFICATIONS (Dimensions in mm unless otherwise stated)

Standard DIP



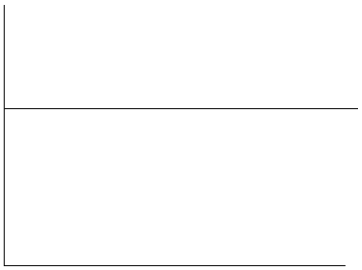
CARRIER TAPE SPECIFICATIONS (Dimensions in mm unless otherwise stated)

Option S/L

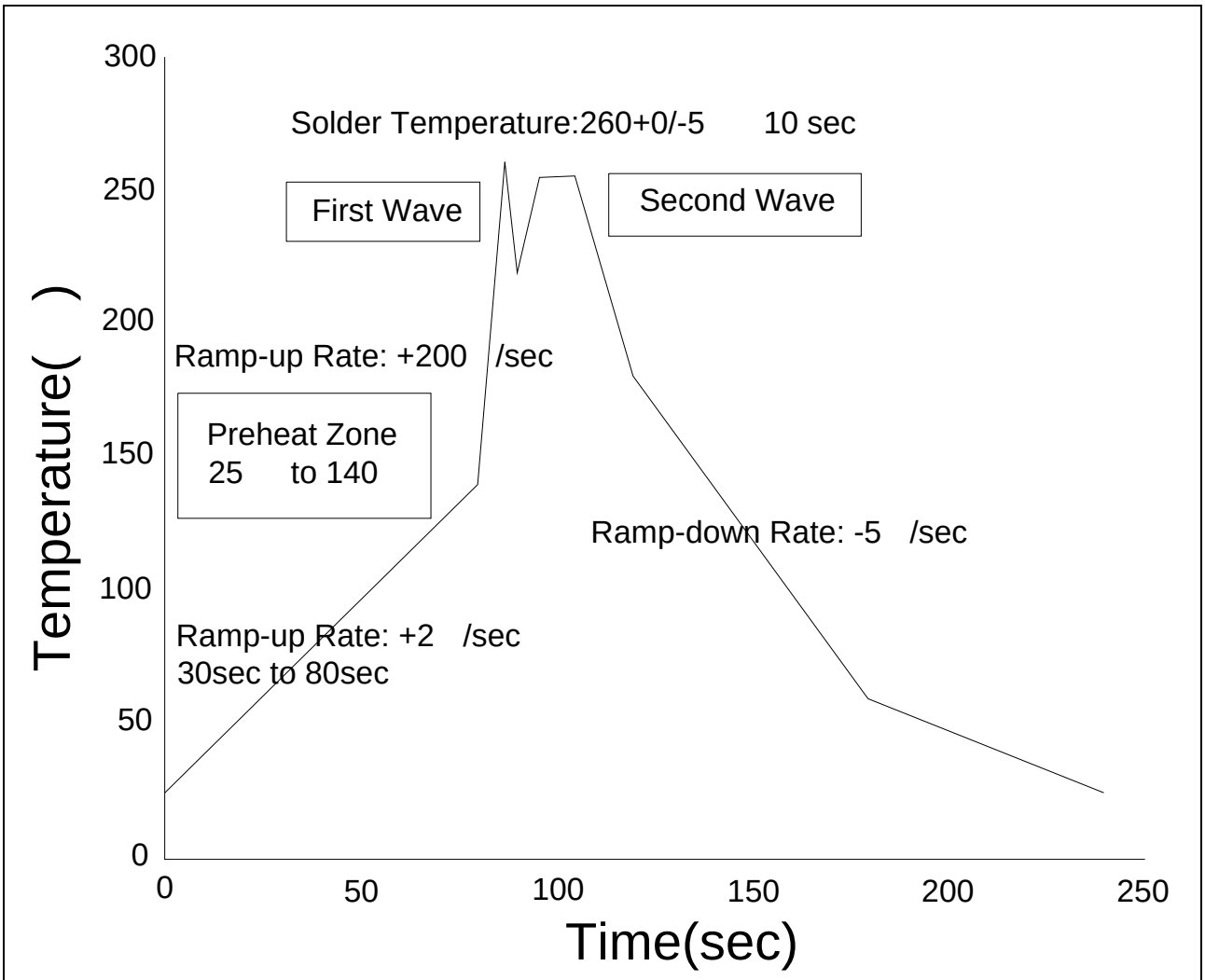


Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
D0		1.50	1.60		0.059	0.063
P0	3.90	4.00	4.10	0.154	0.157	0.161
P1	11.90	12.00	12.10	0.469	0.472	0.476
P2	1.90	2.00	2.10	0.075	0.079	0.083
E	1.65	1.75	1.85	0.065	0.069	0.073
F	7.40	7.50	7.60	0.291	0.295	0.299
T	0.35	0.40	0.45	0.014	0.016	0.018
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
Soldering Time	3s max.

Note:

1. Reflow soldering is recommended at the temperatures and times shown, no more than three times.

2. Avoid direct contact be