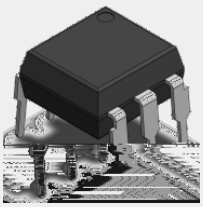
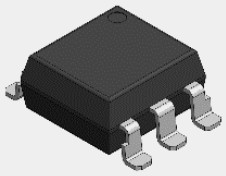
JOCSZ23BM-D6P/S Series

Rev.A.1.0

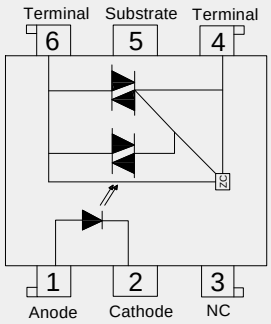
The products are 6-pin solid-state relay opto-couplers. The device combines an AlGaAs infrared emitting diode as the emitter which is optically coupled to a monolithic silicon zero-crossing photo triac to drive a power triac in a plastic DIP6 package with different lead forming options. The products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



JOCSZ23BM-D6P



JOCSZ23BM-D6S



High isolation 5000 Vrms
DC input with triac output
Operating temperature range - 40°C to 110 °C
REACH & RoHS compliance
HBM: H3B; MM: M4; CDM: C3
CQC approved
VDE approved
UL approved

(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	Repetitive peak off-state voltage	V_{DRM}	600	V
	Repetitive peak off-state voltage	V_{RRM}	600	V
	Critical rate of rise of on-state current	dI/dt	100	A/μs
	On-state RMS Current (T_a≤80)	$I_{T(RMS)}$	0.3	A
	Non repetitive surge peak on-state current (full cycle , t_p=20ms)	I_{TSM}	3	A
	junction to case (AC)	$R_{th(j-c)}$	65	/W

Isolation Voltage	V_{iso}	5000	Vrms
Operating Temperature	T_{opr}	-40~110	
Junction Temperature	T_j	125	
Storage Temperature	T_{stg}	-40~125	
Soldering Temperature	T_{sol}	260	
Peak pulse voltage (T_j=25 ; non-repetitive,off-state)	V_{pp}	3	kV

100μs pulse, 100Hz frequency
AC for 1minute, R.H.=40~60%

(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

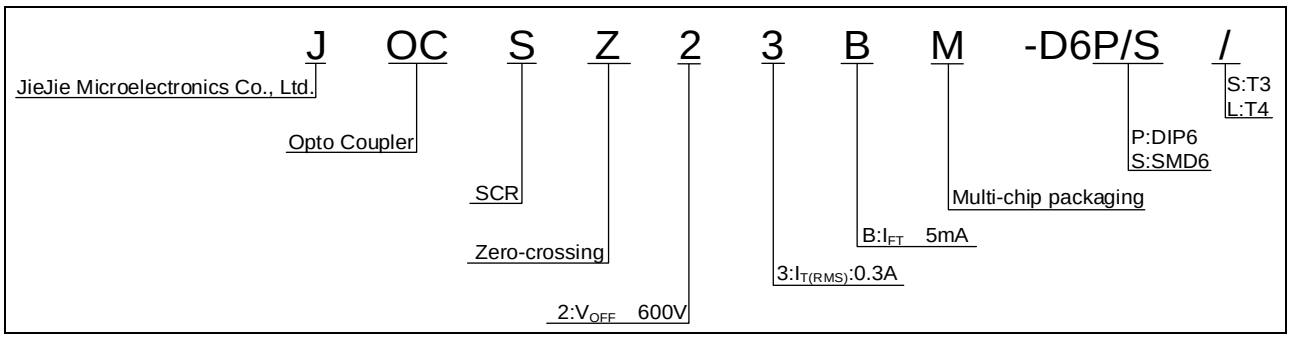

J
OC
S
Z
2
3
B
M
-D6P/S
/
JieJie Microelectronics Co., Ltd.
Opto Coupler
SCR
Zero-crossing
2:V_OFF 600V
3:I_T(RMS):0.3A
B:I_FT 5mA
Multi-chip packaging
P:DIP6
S:SMD6
S:T3
L:T4

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

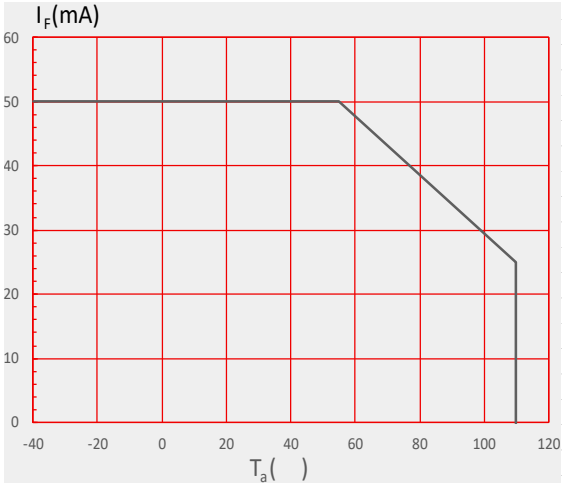


FIG.2: On-state Terminal Current vs. Ambient Temperature

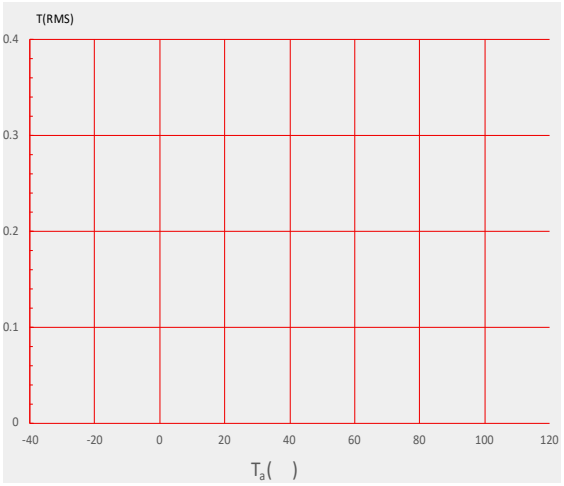


FIG.3: Forward Current vs. Forward Voltage

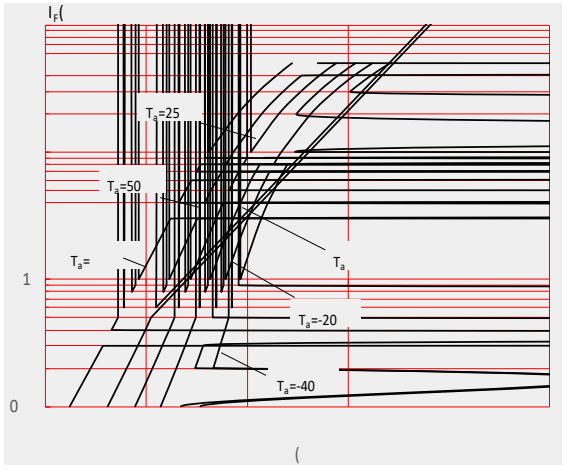


FIG.4: Forward Voltage vs. Ambient Temperature

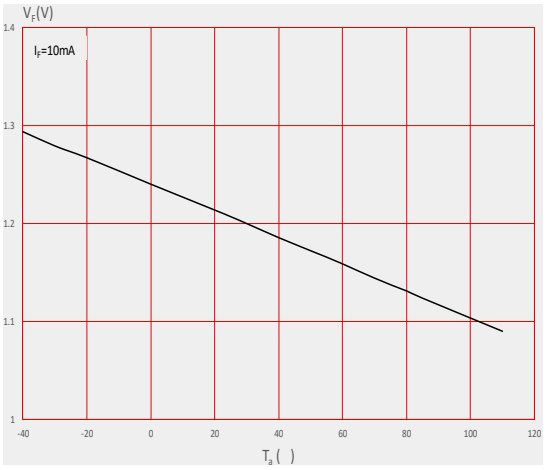


FIG.5: Off-state Terminal Current vs Off-state Terminal Voltage

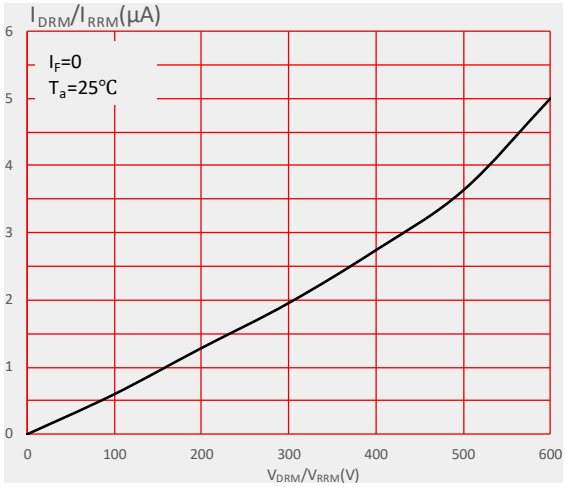


FIG.6: Normalized Trigger Current vs. Ambient Temperature

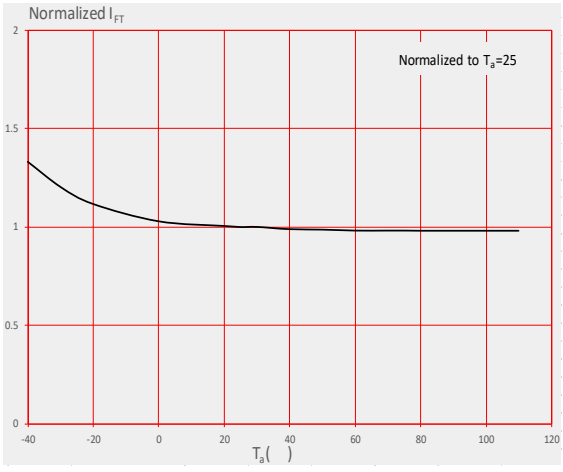


FIG.7: On-state characteristics

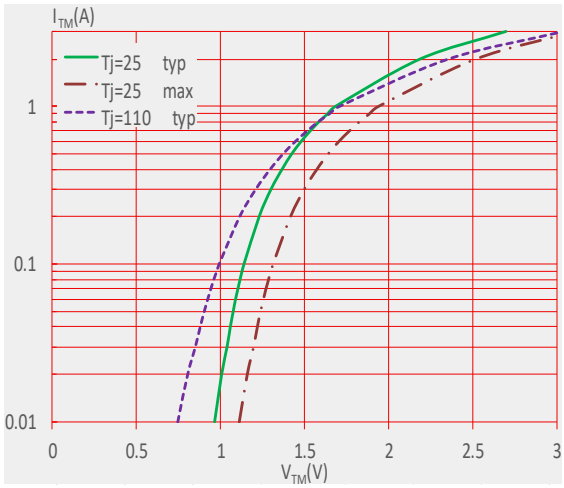


FIG.8: Normalized Holding Current vs. Ambient Temperature

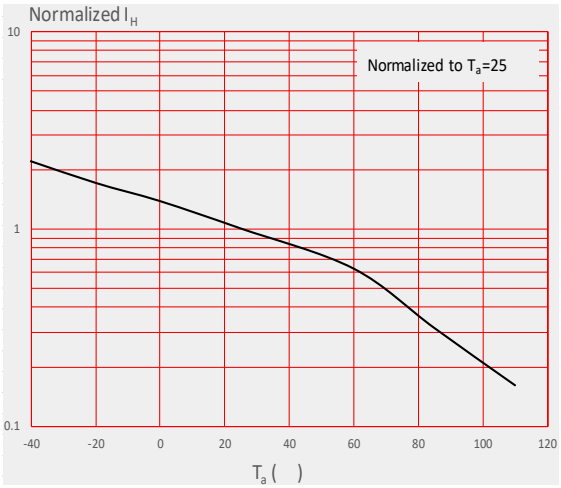


FIG.9: Turn On Time vs. Forward Current

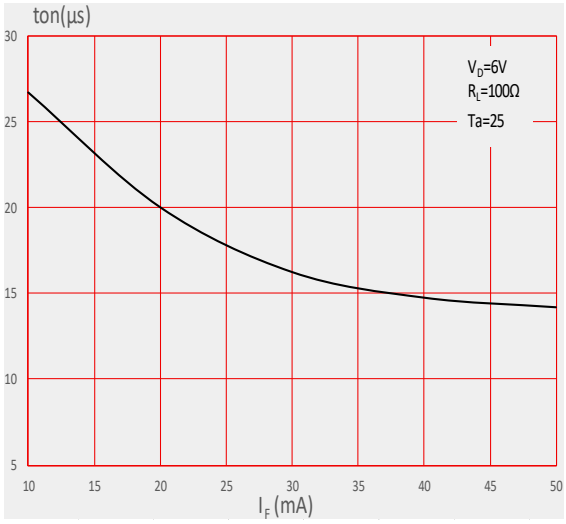


FIG.10: Normalized Inhibit Voltage vs. Ambient Temperature

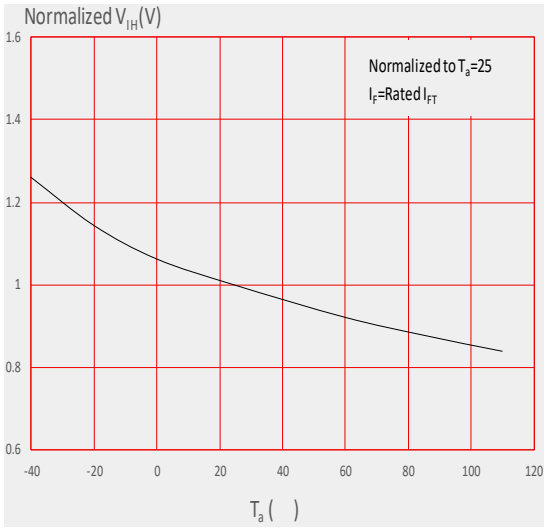


FIG.11: Test Circuits of Turn On Time

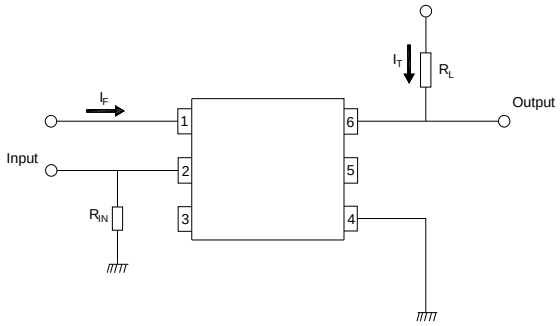


FIG.12: Waveforms of Turn On Time

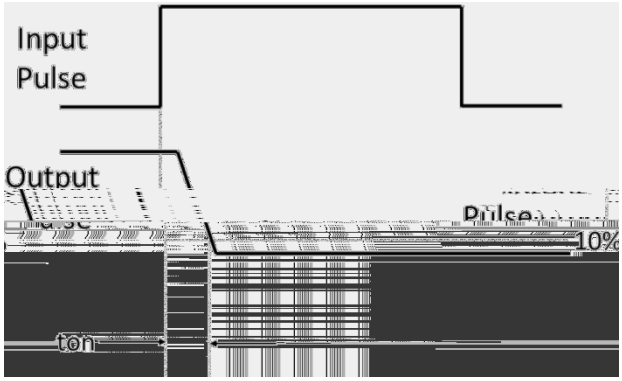
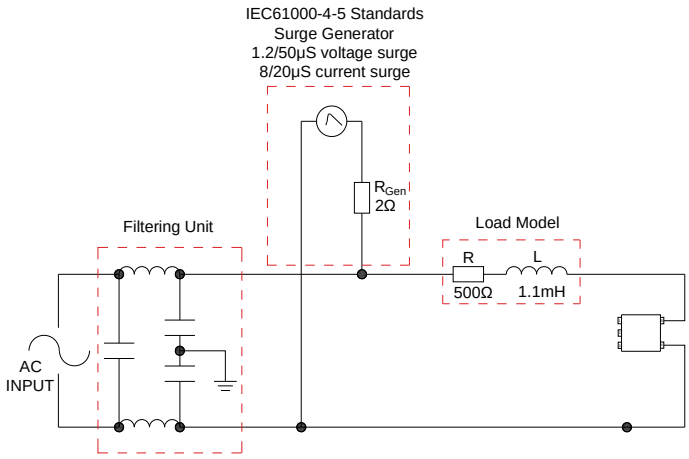
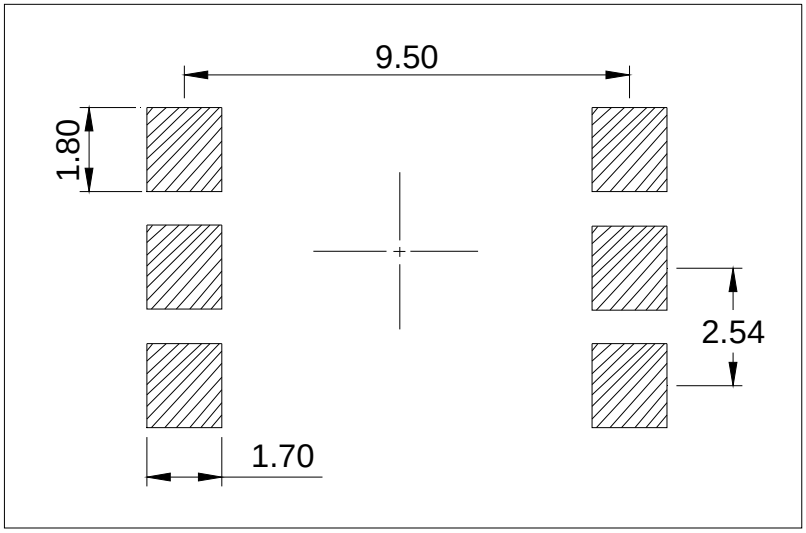


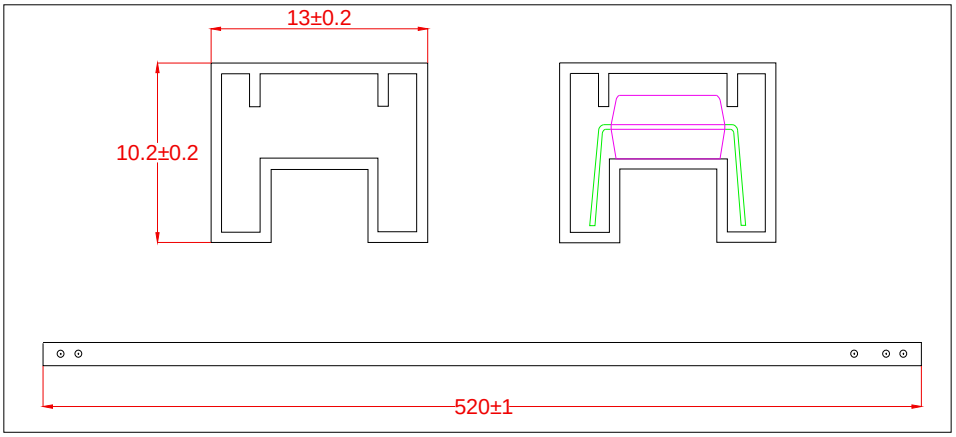
FIG.13: Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



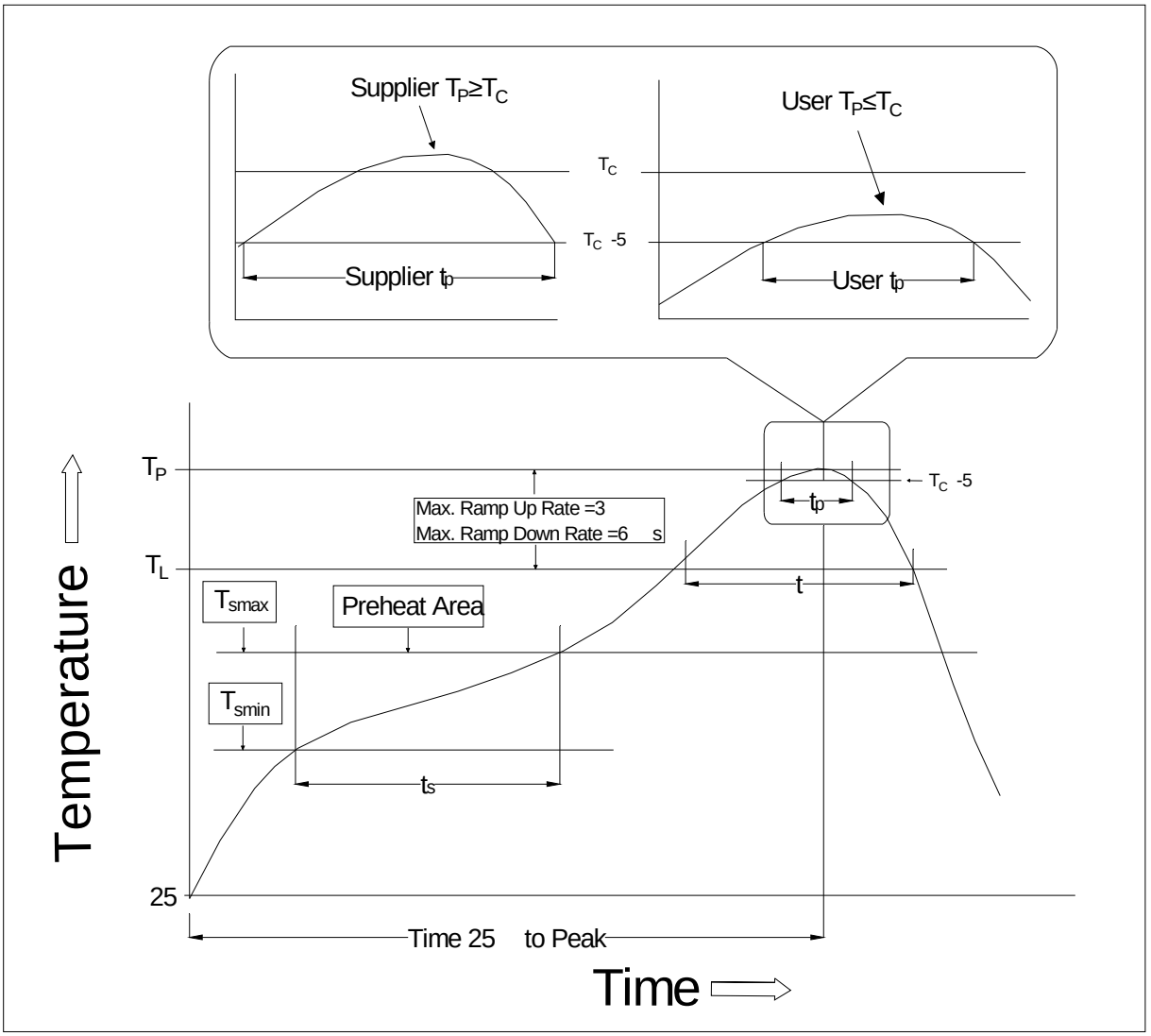
Option SMD



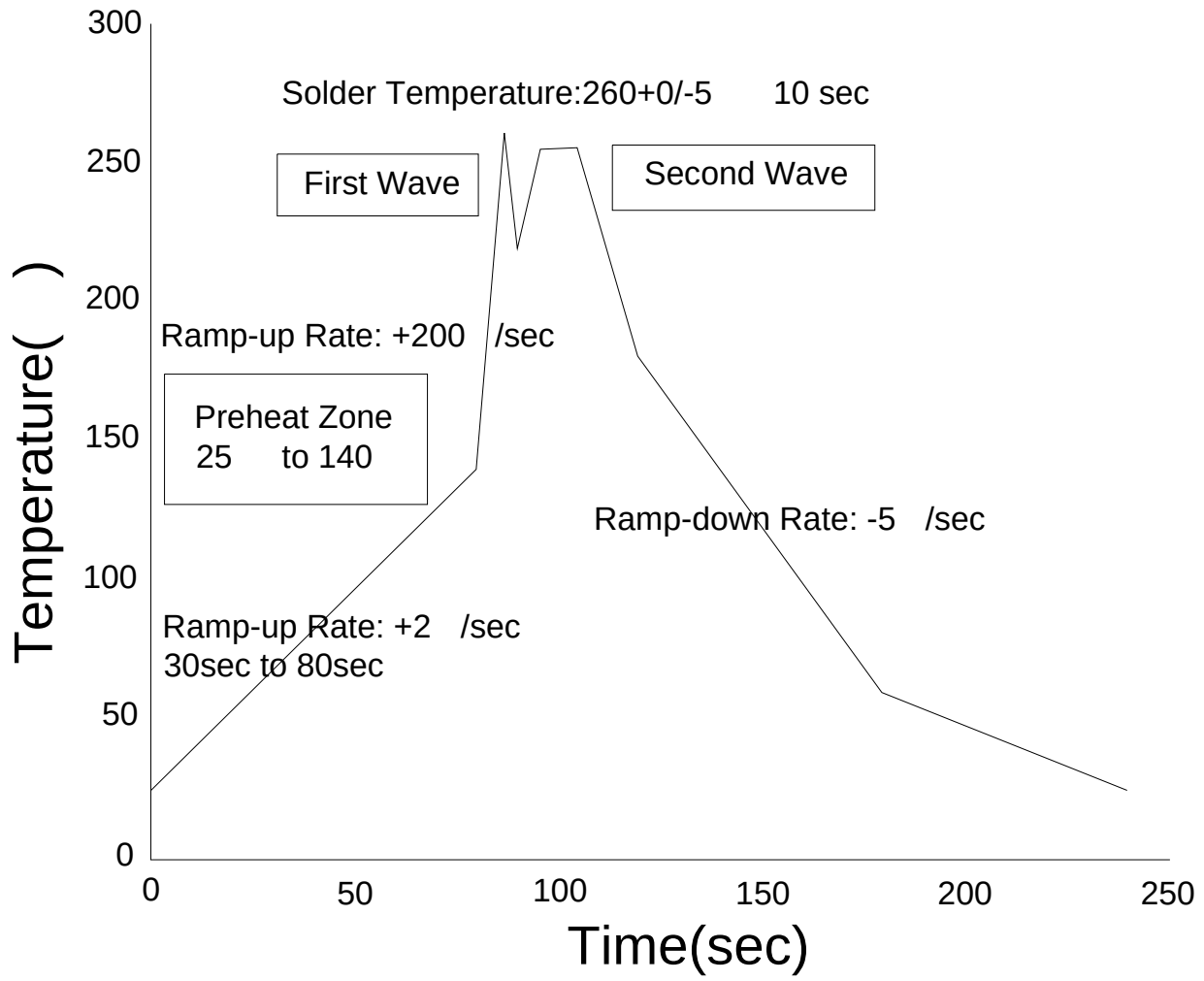
Standard DIP



JOCSZ23BM



Temperature Min. (Tsmin)	150
Temperature Max. (Tsmax)	200
Time (ts) from (Tsmin to Tsmax)	60-120 seconds
Ramp-up Rate (tL to tP)	3 /second max.
Liquidus Temperature (TL)	217
Time (tL) Maintained Above (TL)	60-120 seconds
Peak Body Package Temperature	260 +0 /-5
Time (tP) within 5 of 260	10 seconds
Ramp-down Rate (TP to TL)	6 /second max.



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 between the epoxy body and any tools or surfaces exceeding its maximum storage temperature.

3. Application of pressure on the epoxy body is prohibited at elevated temperatures. In specific scenarios, any applied force must not exceed 2.5N.

4. Ensure the component has cooled to ambient temperature before proceeding with any subsequent manufacturing steps.

5. The component has a shelf life of one year when stored under standard conditions.

6. Recommend storage Temp.: 0~40°C;

Recommend storage humidity: <60%;

MSL level: MSL 1