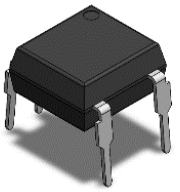
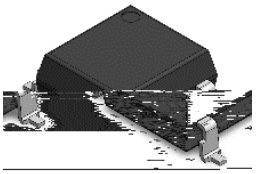
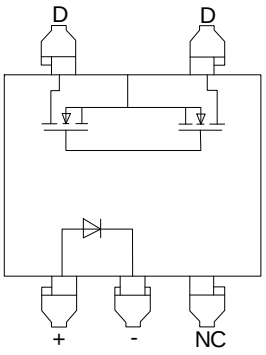
The products are 5-pin optical relays. The device combines an AlGaAs infrared emitting diode input stage optically coupled to a high-voltage output detector circuit. The detector consists of a high-speed photovoltaic diode array and driver circuitry to switch on/off two discrete 1800V high voltage MOSFETs. The relay action with a minimum input current of 5mA through the input LED. The products are widely used in accumulation, automotive battery management system, automobile battery and power system insulation testing, industrial controls and EMR/reed relay replacement.







High isolation 5000 Vrms
Single channel normally on Single-Pole-Single-Throw Relay
Operating temperature range -40°C to 125°C
REACH & RoHS compliance
HBM: H3A; MM: M4; CDM: C3
CQC approved
VDE approved
UL approved

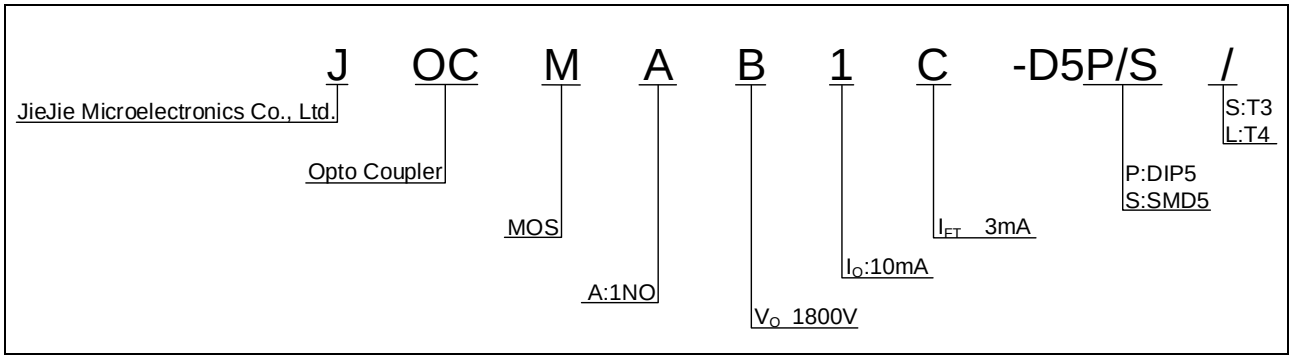
(Temperature=25°C)

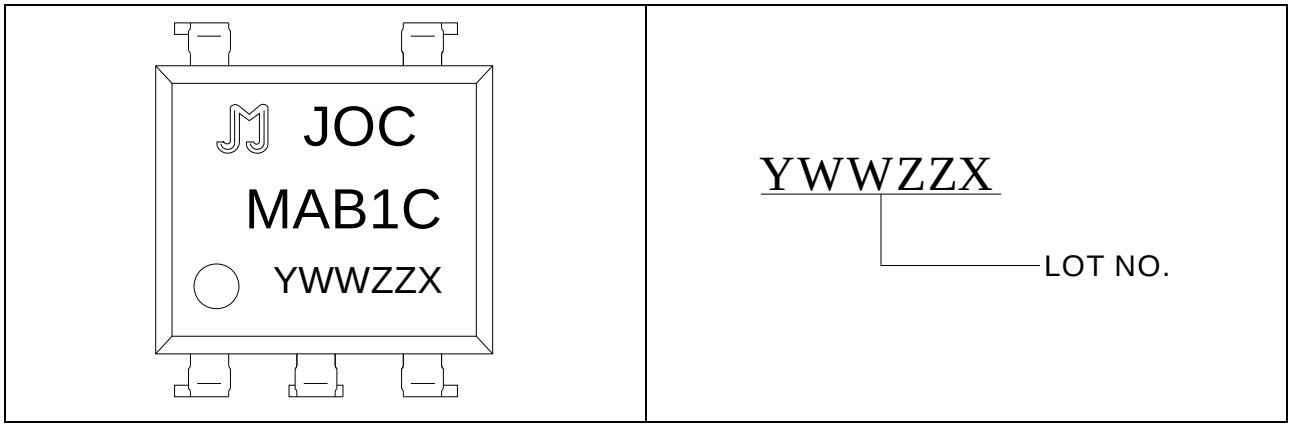
Input	Forward Current	I_F	50	mA
	Peak Forward Current	I_{FP}	1	A
	Reverse Voltage	V_R	6	V
	Power Dissipation	P_D	75	mW
Output	Switching Voltage	V_O	1800	V
	Continuous Load Current	I_O	10	mA
	Power Dissipation	P_C	360	mW
Operating Temperature		T_{opr}	-40~125	
Junction Temperature		T_j	135	
Storage Temperature		T_{stg}	-55~125	

Total Power Dissipation	P_{tot}	450	mW
Isolation Voltage	V_{iso}	5000	Vrms
Soldering Temperature	T_{sol}	260	

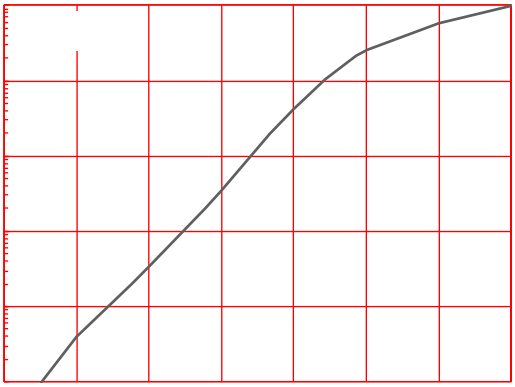
(Temperature=25°C)

Input	Forward Voltage	V_F	I_F=10mA	-	1.2	1.5	V
	Reverse Current	I_R	V_R=6V	-	-	1	μA
	Terminal Capacitance	C_t	V=0,f=1MHz	-	30	-	pF
	Reset Current	$I_{F(OFF)}$	I_O=$I_{O(MAX)}$	0.4	-	-	mA
Output	Off-state Leakage Current	I_{OFF}	V_O=1800V	-	-	10	μA
	ON Resistance	R_{ON}	I_O=$I_{O(MAX)}$, I_F=5mA	-	200	500	Ω
Transfer Characteristics	LED Trigger Current	I_{FT}	I_O=$I_{O(MAX)}$	-	-	3	mA
	Floating Capacitance	C_{IO}	V=0, f=1MHz	-	3	-	pF
	Isolation Resistance	R_{ISO}	DC500V 40~60%R.H.	10^{12}	-	-	Ω
	Turn On Time	t_{on}	I_O=10mA, I_F=5mA	-	0.2	1	ms
	Turn Off Time	t_{off}	I_O=10mA, I_F=5mA	-	0.1	0.2	ms

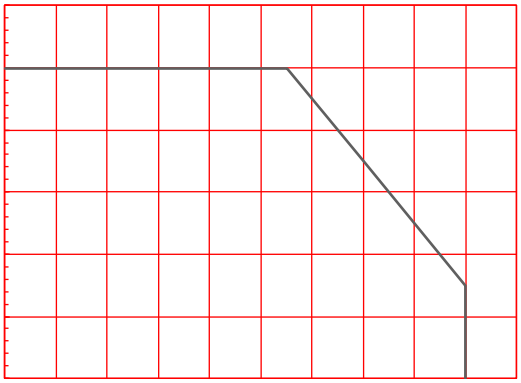

J OC M A B 1 C -D5P/S /
JieJie Microelectronics Co., Ltd.
Opto Coupler
MOS
A:1NO
V_O 1800V
I_O:10mA
I_FT 3mA
P:DIP5
S:SMD5
S:T3
L:T4


JOC
MAB1C
YWWZZX
YWWZZX
LOT NO.

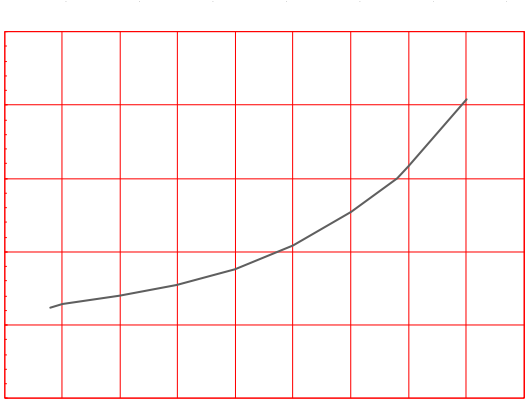
Forward Current vs. Forward Voltage



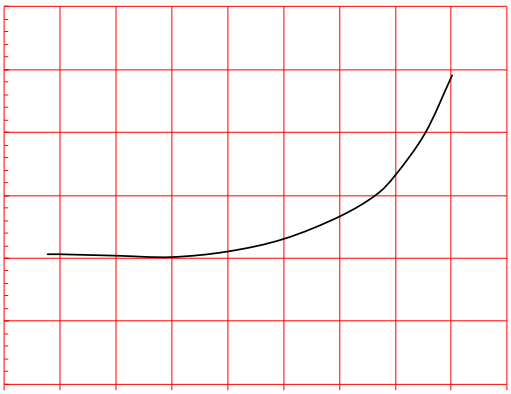
Max. Allowable LED Forward Current vs. Ambient Temperature



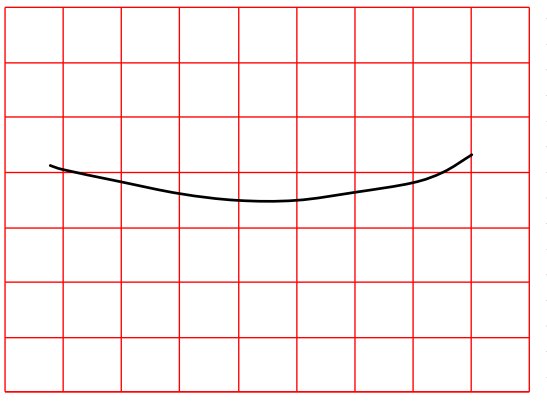
LED Operate Current vs. Ambient Temperature



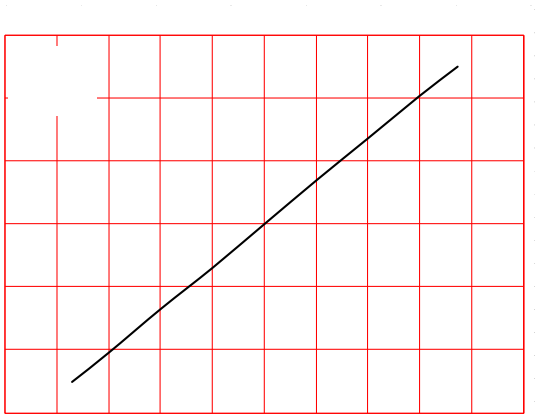
On Resistance vs. Ambient Temperature



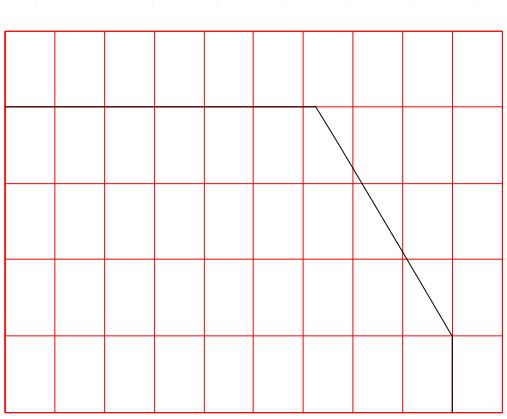
Turn On Time vs. Ambient Temperature



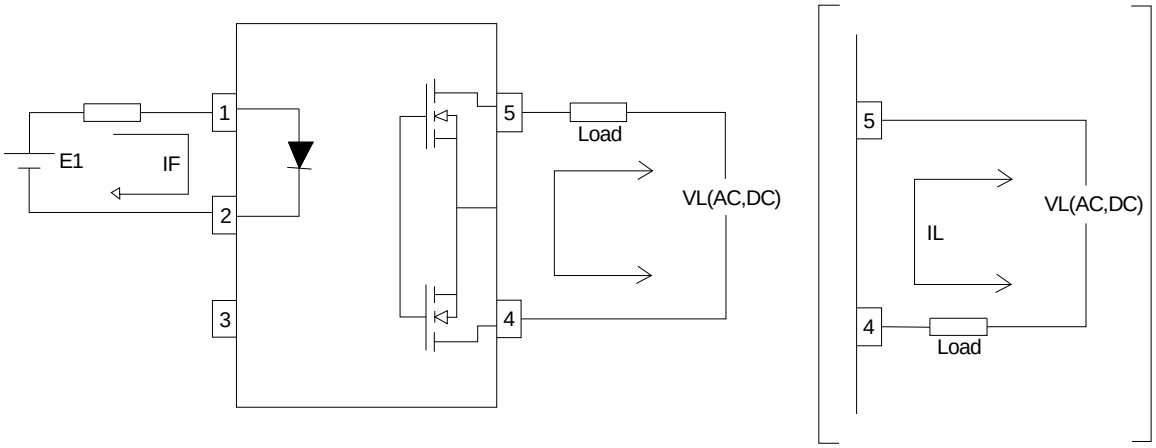
Output Current vs. Output Voltage



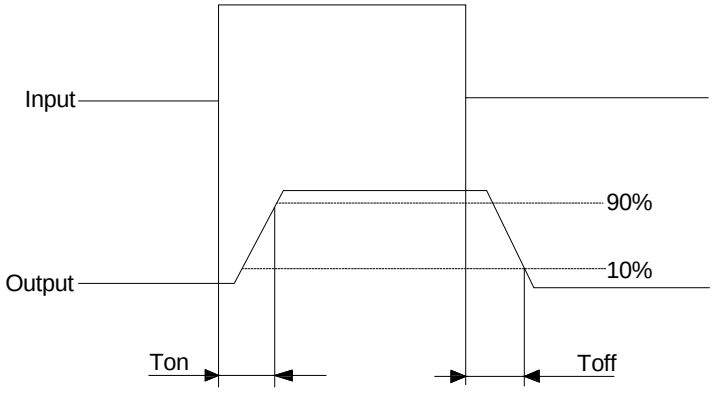
Output Current vs. Ambient Temperature

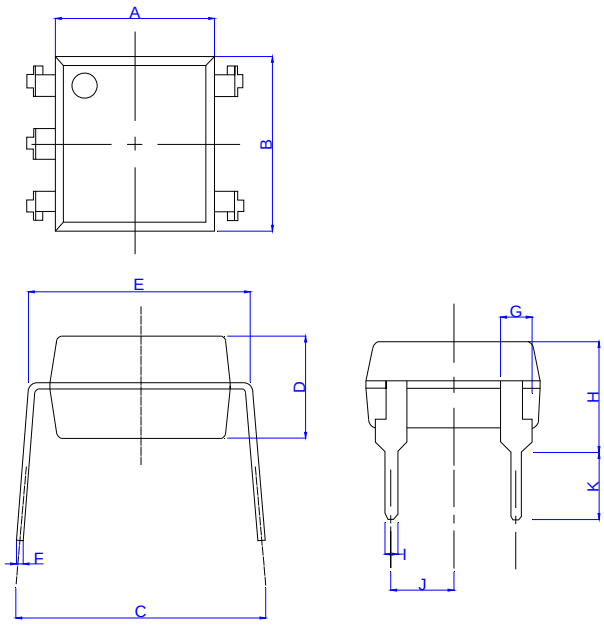


Wiring diagram

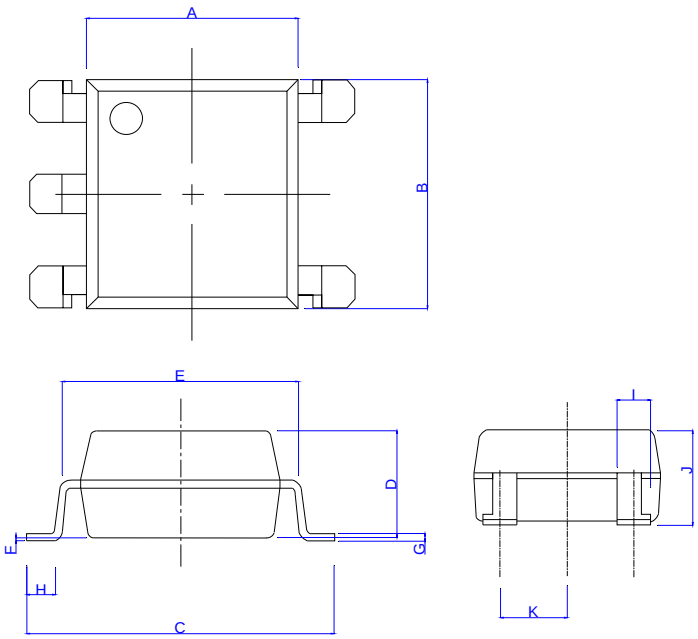


The test method of Ton and Toff

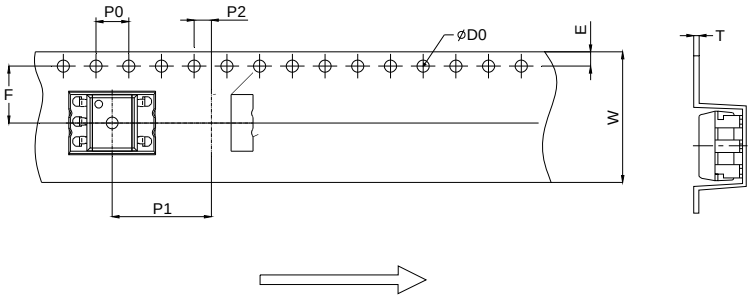




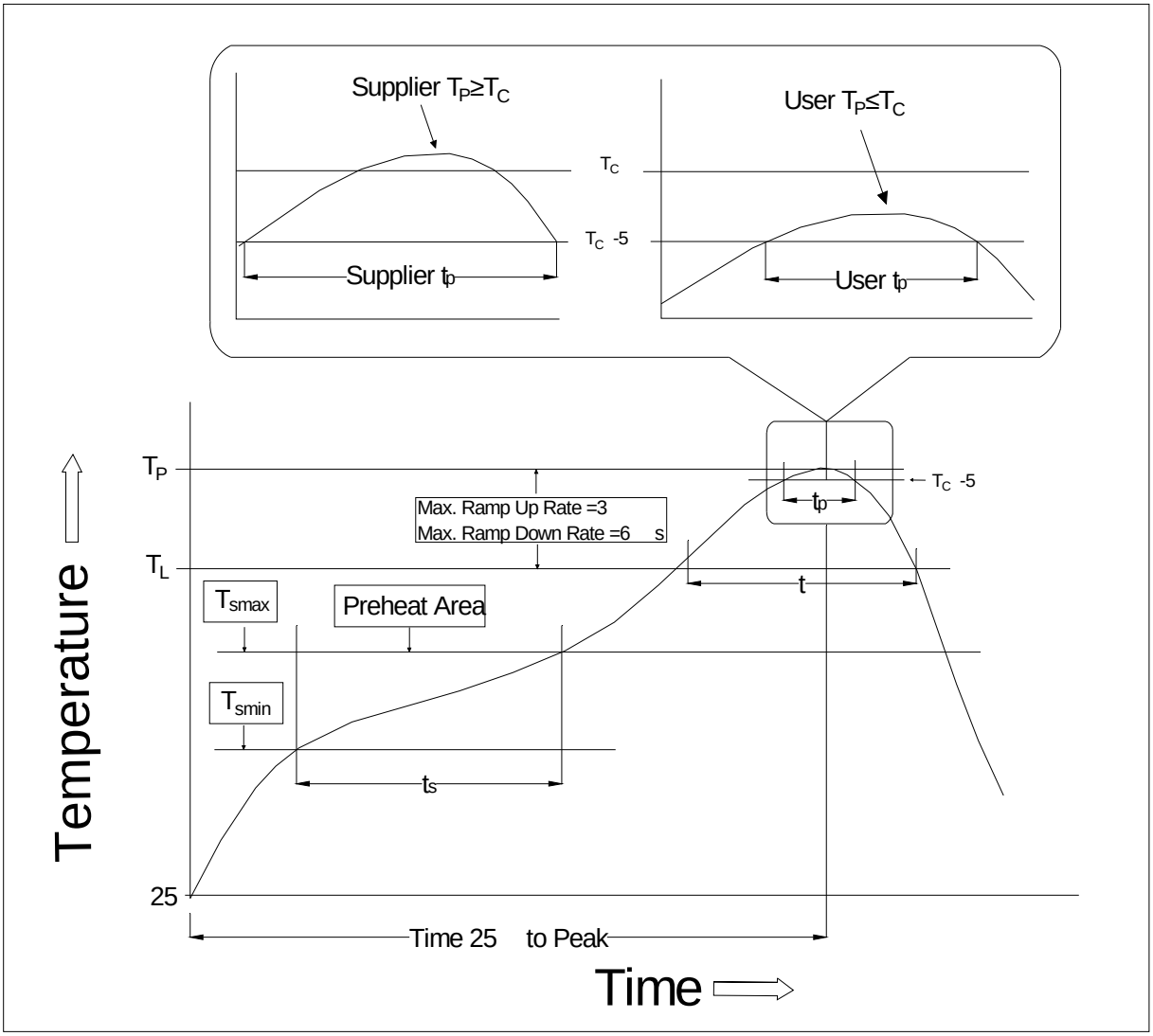
Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	6.20		6.60	0.244		0.260
B	6.92		7.32	0.272		0.288
C	7.15		8.95	0.281		0.352
D	3.20		3.60	0.126		0.142
E	7.32		7.92	0.288		0.312
F	0.15		0.35	0.006		0.014
G	1.15		1.35	0.045		0.053
H	3.90		4.50	0.154		0.177
I	0.40		0.60	0.016		0.024
J	2.29		2.79	0.090		0.110
K	2.24		3.24	0.088		0.128



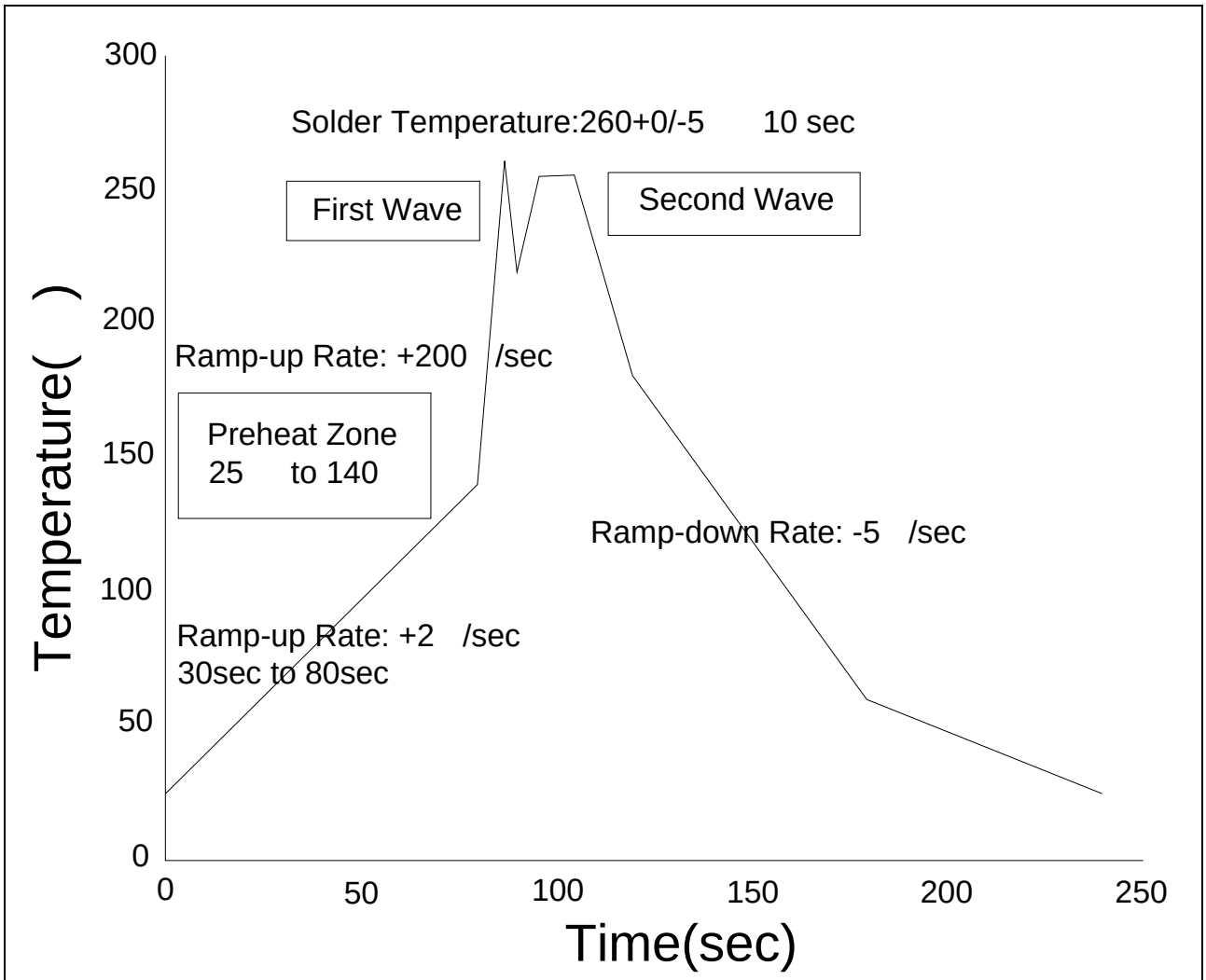
Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	6.20		6.60	0.244		0.260
B	6.92		7.32	0.272		0.288
C	9.50		10.50	0.375		0.413
D	3.20		3.60	0.126		0.142
E	7.32		7.92	0.288		0.312
F	0.05		0.35	0.002		0.014
G	0.16		0.36	0.006		0.014
H	0.60		1.40	0.024		0.055
I	0.90		1.50	0.035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



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



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