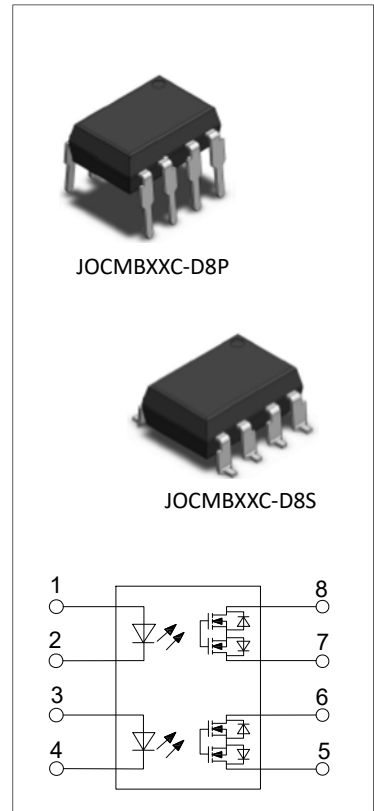




DESCRIPTION:

The products are 8-pin optical relays. The device consists of an AlGaAs infrared emitting diode input stage optically coupled to a high-voltage output detector circuit in a plastic DIP8 package with different lead forming options. The detector consists of a high-speed photovoltaic diode array and driver circuitry. The products are widely used in isolation in high-speed inspection machines, telephones equipment and computers.



MAIN FEATURES

- High isolation 5000 Vrms
- Wide variation of load voltage 60V to 600V
- Operating temperature range -40°C to 110°C
- REACH & RoHS compliance
- HBM: H3A; MM: M4; CDM: C3
- CQC approved
- VDE approved
- UL approved

ABSOLUTE MAXIMUM RATINGS (Temperature=25°C)

Parameter		Symbol	Value	Unit
Input	Forward Current	I_F	50	mA
	Peak Forward Current	I_{FP}	1 ^①	A
	Reverse Voltage	V_R	6	V
	Input Power Dissipation	P_D	75	mW
Output	Load Voltage	JOCMB39C	60	V
		JOCMB38C	60	
		JOCMB57C	100	
		JOCMB66C	200	
		JOCMB75C	400	
		JOCMB74C	400	
		JOCMB83C	600	
	Continuous load current	JOCMB39C	2	A
		JOCMB38C	1	
		JOCMB57C	0.5	
		JOCMB66C	0.3	
JOCMB75C		0.18		

	JOCMB74C	0.1	
	JOCMB83C	0.05	
	Output Power Dissipation	P _O	800 mW
Total Power Dissipation		P _{tot}	875 mW
Isolation Voltage		V _{iso}	5000 ^② V _{rms}
Operating Temperature		T _{opr}	-40~110 °C
Junction Temperature		T _j	125 °C
Storage Temperature		T _{stg}	-40~125 °C
Soldering Temperature		T _{sol}	260 °C

NOTE1 : 100μs pulse, 100Hz frequency

NOTE2 : AC for 1minute, R.H.=40~60%

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	
	Action Current	I _{F(ON)}	I _L =I _{L(MAX)}	-	0.9	3	mA	
	Reset Current	I _{F(OFF)}	I _L =I _{L(MAX)}	0.4	0.8	-	mA	
Output	On Resistance	JOCMB39C	I _F =5mA I _L =Max. Within 1s on time	-	-	0.1	Ω	
		JOCMB38C		-	-	0.3		
		JOCMB57C		-	-	0.2		
		JOCMB66C		-	-	2.5		
		JOCMB75C		-	-	25		
		JOCMB74C		-	-	25		
		JOCMB83C		-	-	35		
	Off State Leakage Current	I _{Leak}	I _F =0mA, V _L =Max.	-	-	1	μA	
Output Capacitance	C _{OFF}	V _{OFF} =0V, f _o =1MHz	-	6	-	pF		
Switching Characteristics	Isolation Resistance	R _{ISO}	DC500V 40~60%R.H.	10 ¹²	-	-	Ω	
	Floating Capacitance	C _{IO}	V=0, f=1MHz	-	0.8	1.5	pF	
	Turn On Time	JOCMB39C	t _{on}	I _F =5mA, I _L =Max.	-	0.65	2	ms
		JOCMB38C			-	0.65	2	
		JOCMB57C			-	0.6	2	
		JOCMB66C			-	0.25	1	
		JOCMB75C			-	0.33	0.5	
		JOCMB74C			-	0.31	0.5	
JOCMB83C	-	0.28	0.5					

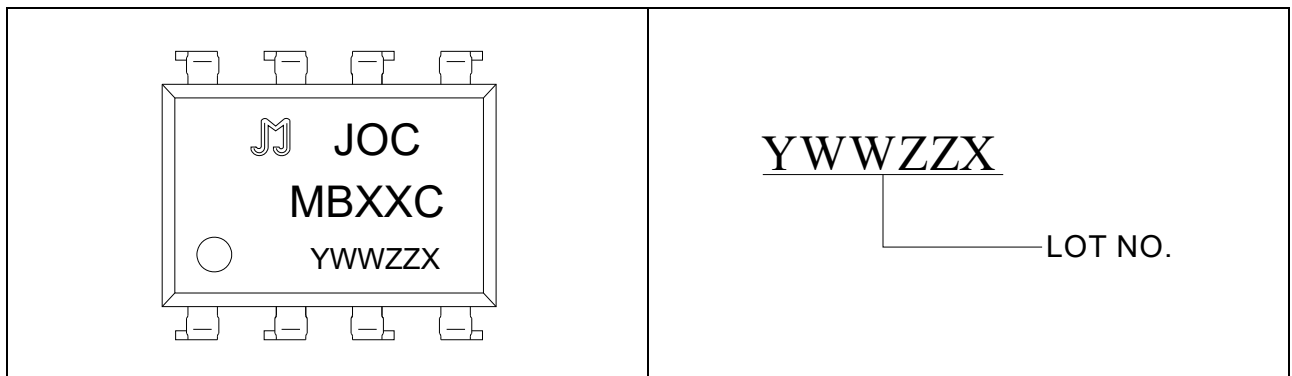
	Turn Off Time	JOCMB39C	t_{off}	$I_F=5mA,$ $I_L=Max.$	-	0.08	0.2	ms
		JOCMB38C			-	0.08	0.2	
		JOCMB57C			-	0.06	0.2	
		JOCMB66C			-	0.05	0.2	
		JOCMB75C			-	0.05	0.2	
		JOCMB74C			-	0.05	0.2	
		JOCMB83C			-	0.04	0.2	

ORDERING INFORMATION

J	OC	M	B	3	8	C	-D8P/S	/
JieJie Microelectronics Co., Ltd.								
Opto Coupler		MOS	B:2NO		C: $I_{FT} \leq 3mA$		P:DIP8 S:SMD8	
			3: $V_o: 60V$ 5: $V_o: 100V$ 6: $V_o: 200V$ 7: $V_o: 400V$ 8: $V_o: 600V$		9: $I_o: 2A$ 8: $I_o: 1A$ 7: $I_o: 0.5A$ 6: $I_o: 0.3A$ 5: $I_o: 0.18A$ 4: $I_o: 0.1A$ 3: $I_o: 0.05A$		S:T3 L:T4	

Packing Quantity	
Option	Quantity
DIP	50 Units/Tube
SMD	1200 Units/Reel

MARKING



Characteristics Curves

FIG.1: LED Dropout Voltage vs. Ambient Temperature

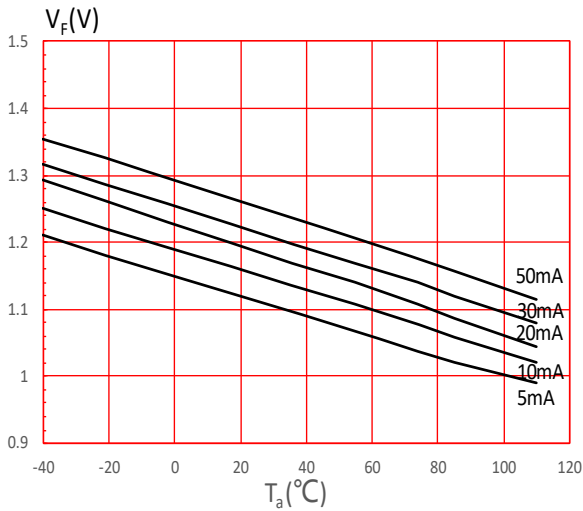


FIG.2: Output Current vs. Output Voltage

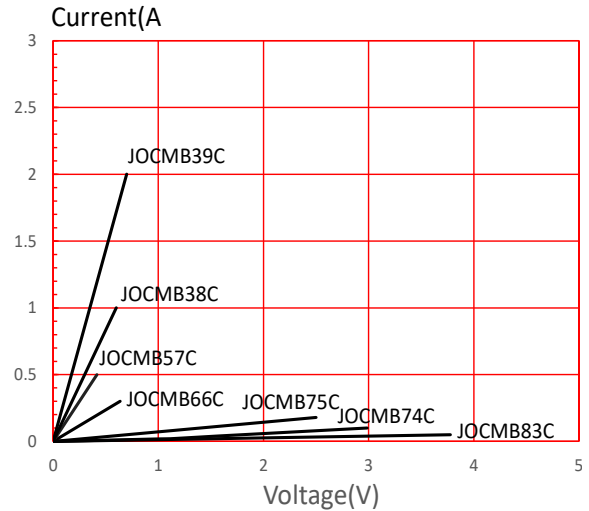


FIG.3: On Resistance vs. Ambient Temperature

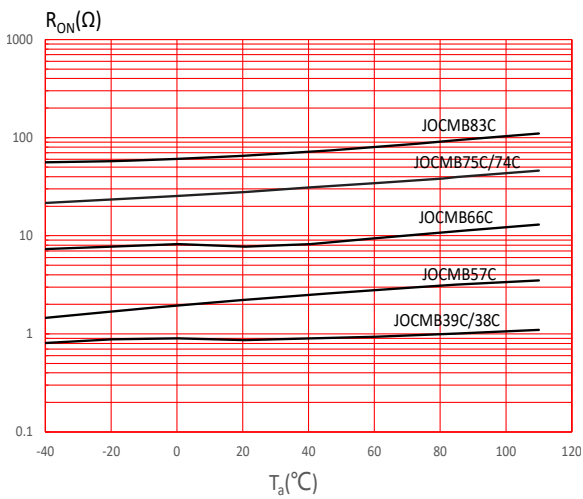


FIG.4: Load Current vs. Ambient Temperature

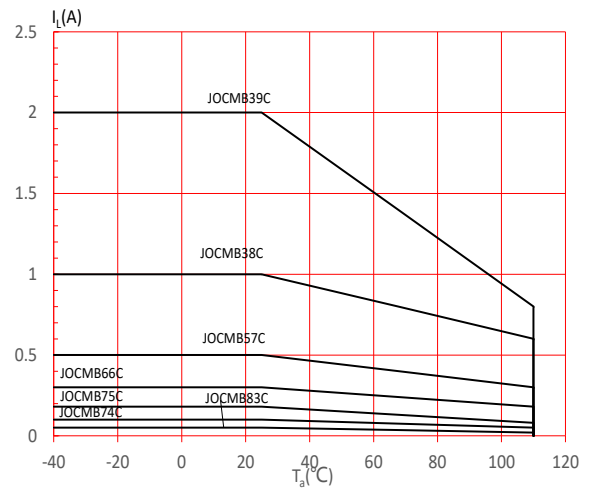


FIG.5: LED Operate Current vs. Ambient Temperature

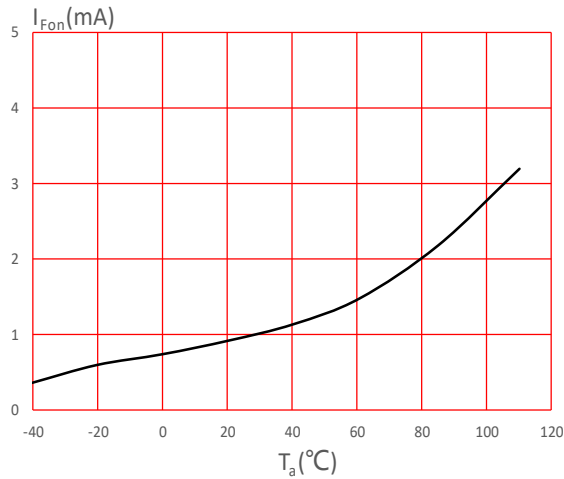


FIG.6: LED Turn Off Current vs. Ambient Temperature

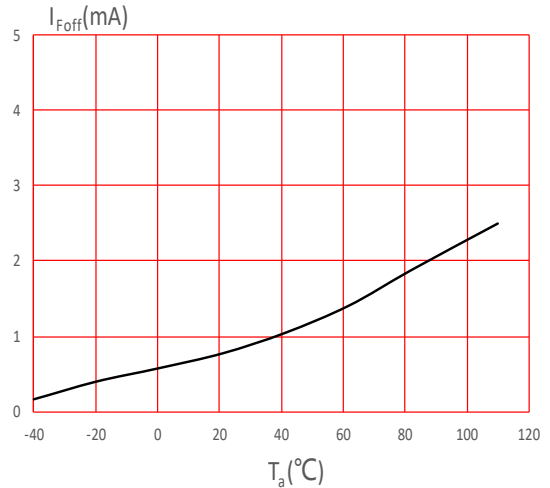


FIG.7: Turn On Time vs. Ambient Temperature

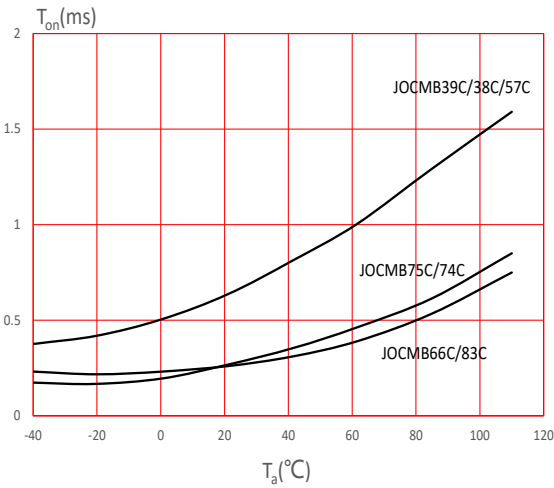


FIG.8: Turn Off Time vs. Ambient Temperature

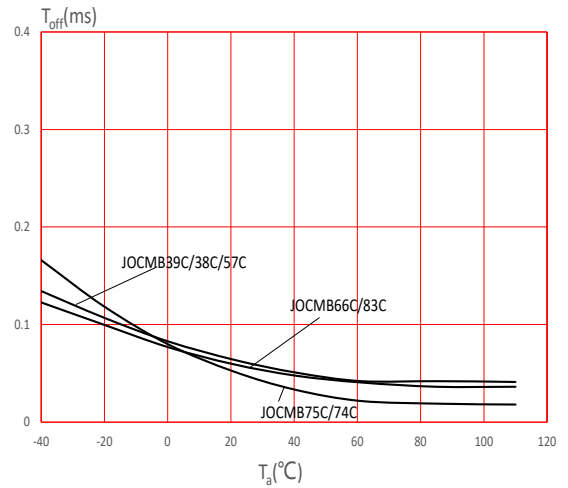


FIG.9: Turn On Time vs. LED Forward Current

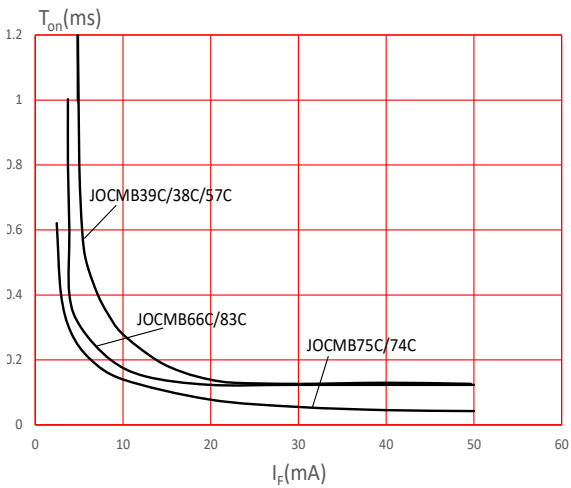


FIG.10: Turn Off Time vs. LED Forward Current

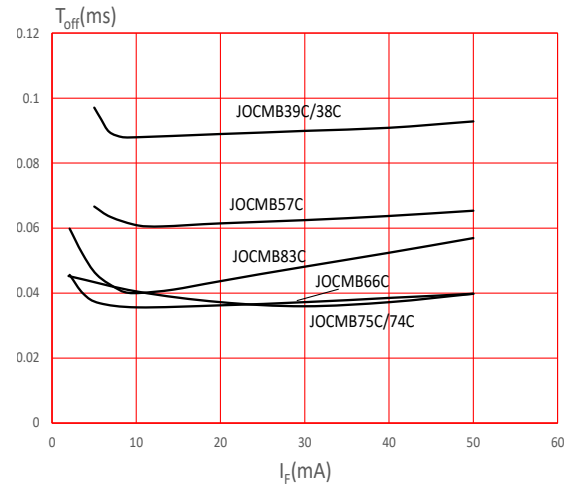


FIG.11: Off State Leakage Current vs. Load Voltage

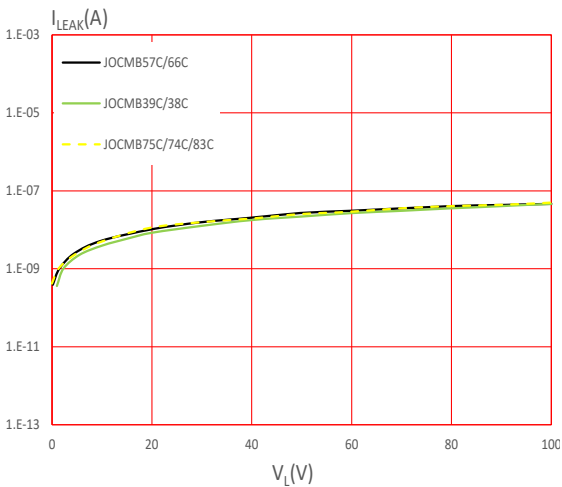
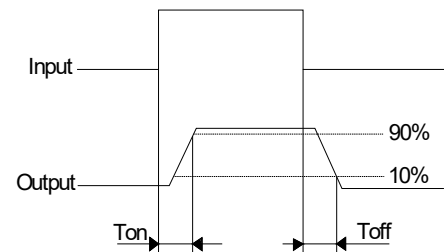
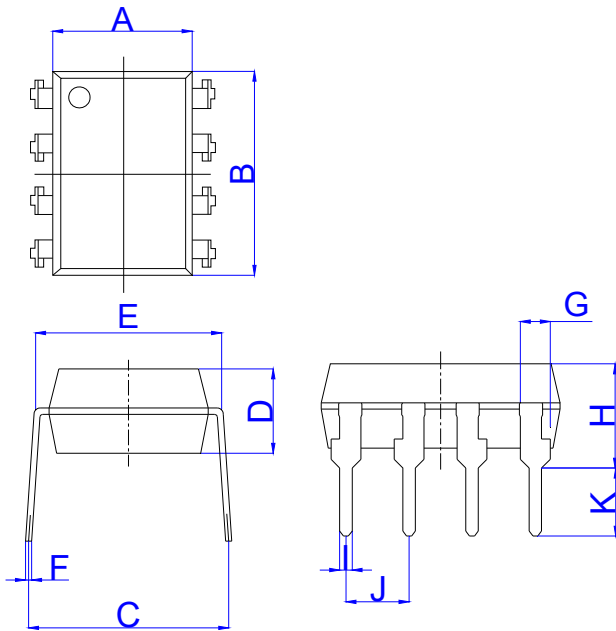


Fig.12: Turn on/Turn off time



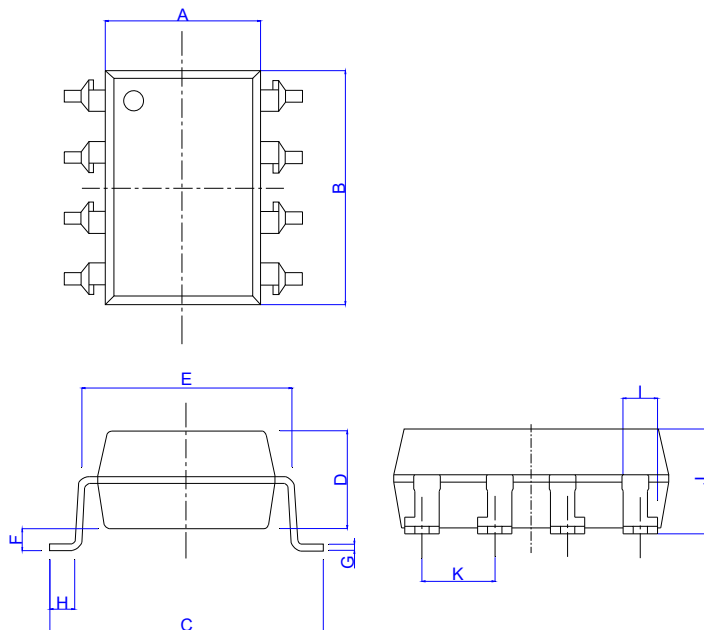
Package Dimension (Unit: mm)

Standard DIP Type:



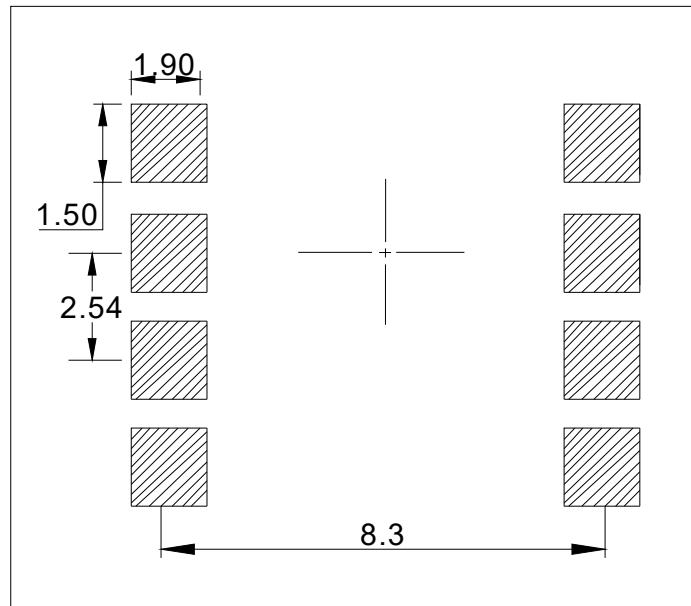
Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	6.20		6.60	0.244		0.260
B	9.40		9.80	0.370		0.386
C	7.15		8.95	0.281		0.352
D	3.20		3.60	0.126		0.142
E	7.32		7.92	0.288		0.312
F	0.15		0.35	0.006		0.014
G	0.90		1.50	0.035		0.059
H	3.90		4.50	0.154		0.177
I	0.40		0.60	0.016		0.024
J	2.29		2.79	0.090		0.110
K	2.24		3.24	0.088		0.128

Option SMD Type:



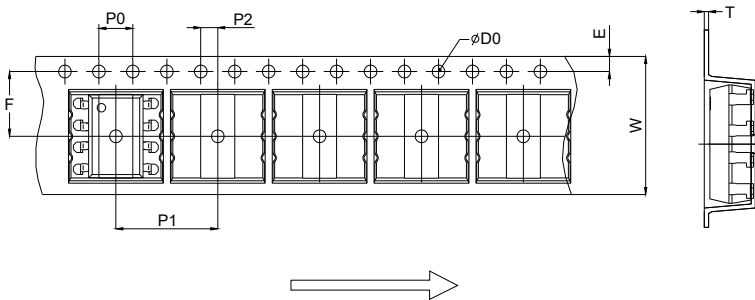
Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	6.20		6.60	0.244		0.260
B	9.40		9.80	0.370		0.386
C	9.50		10.50	0.374		0.413
D	3.20		3.60	0.126		0.142
E	7.32		7.92	0.288		0.312
F	0.05		0.35	0.002		0.014
G	0.16		0.36	0.006		0.014
H	0.60		1.40	0.024		0.055
I	0.90		1.50	0.035		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)



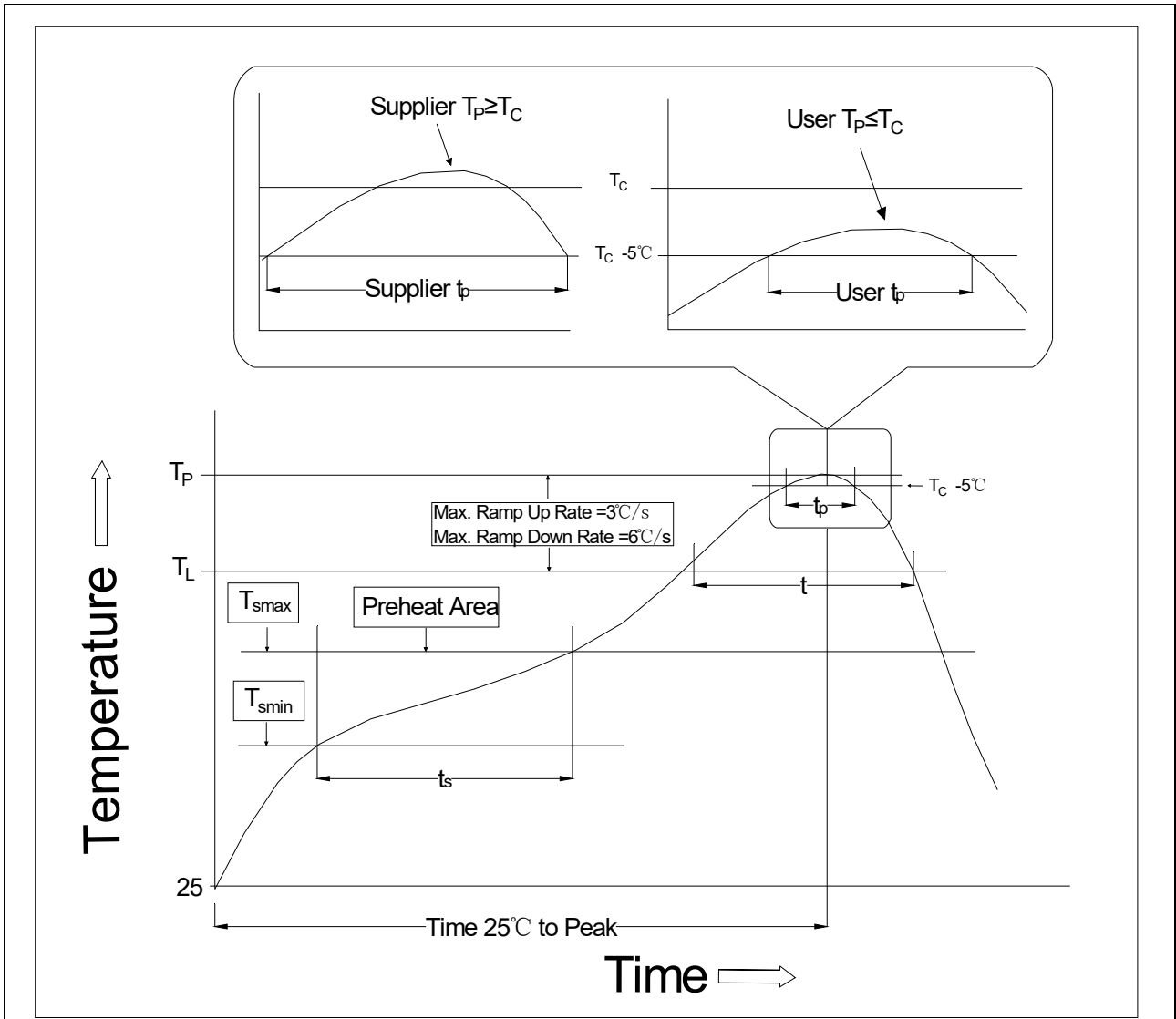
CARRIER TAPE SPECIFICATIONS (Dimensions in mm unless otherwise stated)

Option S/L



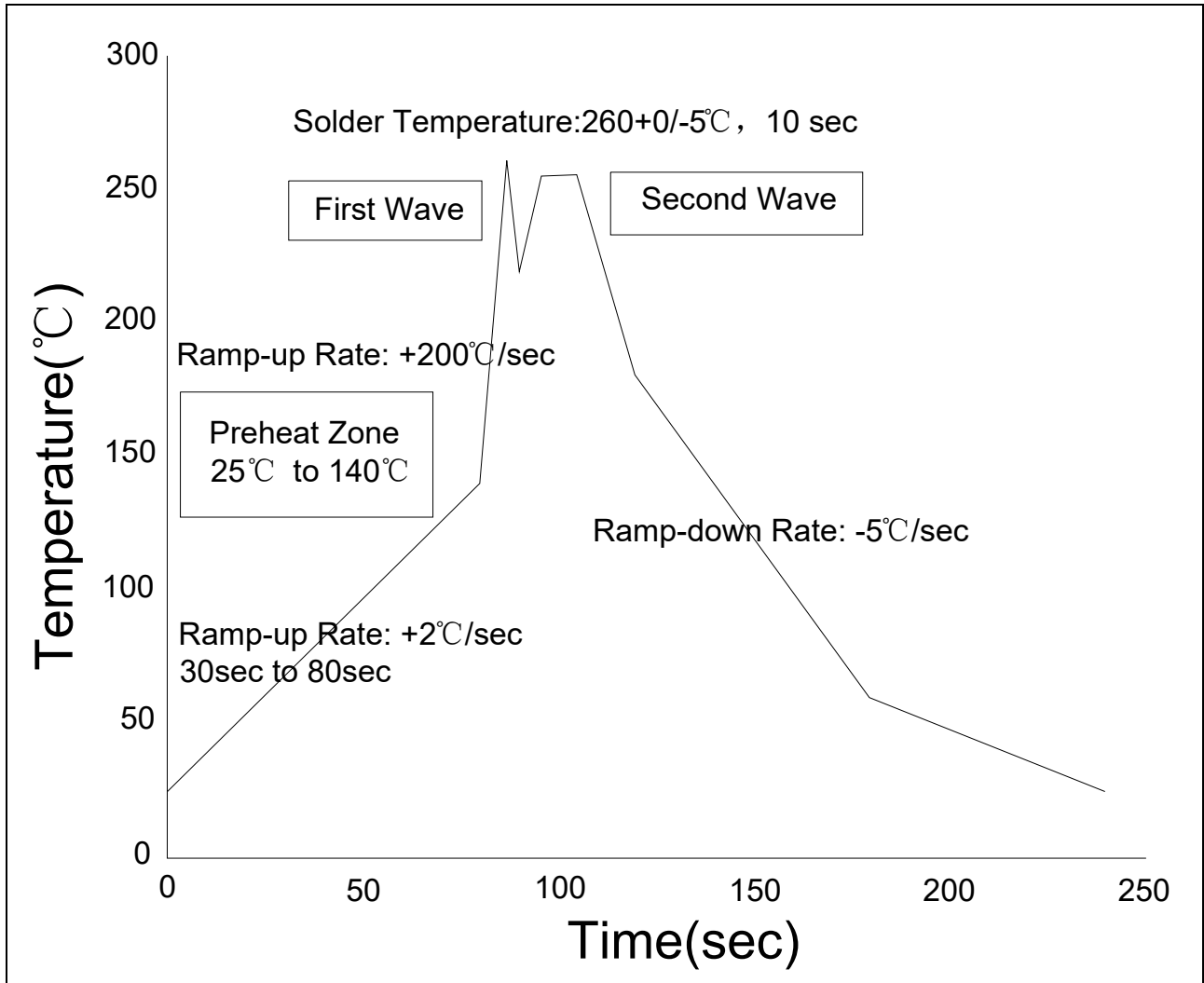
Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
D0		1.50	1.60		0.059	0.063
P0	3.90	4.00	4.10	0.154	0.157	0.161
P1	11.90	12.00	12.10	0.469	0.472	0.476
P2	1.90	2.00	2.10	0.075	0.079	0.083
E	1.65	1.75	1.85	0.065	0.069	0.073
F	7.40	7.50	7.60	0.291	0.295	0.299
T	0.35	0.40	0.45	0.014	0.016	0.018
W	15.90	16.00	16.20	0.626	0.630	0.638

REFLOW INFORMATION



Profile Feature	Sn-Pb Assembly Profile	Pb-Free Assembly Profile
Temperature Min. (T _{smin})	100	150°C
Temperature Max. (T _{smax})	150	200°C
Time (t _s) from (T _{smin} to T _{smax})	60-120 seconds	60-120 seconds
Ramp-up Rate (t _L to t _P)	3°C/second max.	3°C/second max.
Liquidus Temperature (T _L)	183°C	217°C
Time (t _L) Maintained Above (T _L)	60-150 seconds	60-150 seconds
Peak Body Package Temperature	235°C+0°C/-5°C	260°C+0°C/-5°C
Time (t _P) within 5°C of 260°C	20 seconds	30 seconds
Ramp-down Rate (T _P to T _L)	6°C/second max.	6°C/second max.
Time 25°C to Peak Temperature	6 minutes max.	8 minutes max.

WAVE SOLDERING



HAND SOLDERING BY SOLDERING IRON


Soldering Temperature	$360 \pm 5^{\circ}\text{C}$
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

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