The products are gate driver opto-couplers in a plastic WSOP8 package. The device consists of an infrared LED optically coupled to an integrated high-gain, high-speed photodetector IC chip. It provides guaranteed performance and specifications at temperature up to 110 . It is physically smaller and compliant with international safety standards for reinforced insulation. It thus provides a smaller footprint solution for applications that require safety standard certification. An internal noise shield provides a guaranteed common-mode transient immunity of ±20 kV/μs.

(Temperature=25°C)

LED	Forward Current	I_F	50	mA
	Peak Forward Current	I_{FP}	1	A
	Reverse Voltage	V_R	6	V
	Power Dissipation	P_D	100	mW
Detector	Output Voltage	V_O	35	V
	Supply Voltage	V_{CC}	35	V
	Power Dissipation	P_C	400	mW
Isolation Voltage		V_{iso}	7500	Vrms
Operating Temperature		T_{opr}	-40~110	
Junction Temperature		T_j	125	
Storage Temperature		T_{stg}	-55~125	
Total Power Dissipation		P_{tot}	500	mW
Soldering Temperature		T_{sol}	260	

:100μs pulse, 100Hz frequency

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

(Temperature=25°C)

Input	Forward Voltage	V_F	I_F=10mA	-	1.35	1.6	V
	Reverse Current	I_R	V_R=6V	-	-	1	μA
	Terminal Capacitance	C_t	V=0,f=1MHz	-	60	-	pF
Output	Peak High-level Output Current	I_{OPH}	V_O=V_{CCp} ,				

	High Level Output Voltage	V_{OH}	I_F=5mA, V_{CC}=10V, I_O=-100mA	6	8.4	-	V
	Low Level Output Voltage	V_{OL}	V_F=0.8V, V_{CC}=10V, I_O=100mA	-	0.3	1	V
	Threshold Input Current	I_{FLH}	V_{CC}=15V, V_O 1V	-	1.2	5	mA
	Threshold Input Voltage	V_{FHL}	V_{CC}=15V, V_O 1V	0.8	-	-	V
	Supply Voltage	V_{CC}	-	15	-	30	V
	UVLO Threshold	VUVLO+	V_O 5V, I_F=10mA	12.1	12.8	13.5	V
		VUVLO-	V_O 5V, I_F=10mA	11.1	11.8	12.4	V

Propagation Delay Time to High Output Level	t_{PLH}①	R_g=47Ω, C_g=3nF, I_F=0→5mA, V_{CC}=30V	30	-	500	ns
Propagation Delay Time to Low Output Level	t_{PHL}①	R_g=47Ω, C_g=3nF, I_F=5→0mA, V_{CC}=30V	30	-	500	
Propagation Delay Difference Between Any Two Parts	t_{PHL}- t_{PLH}①	R_g=47Ω, C_g=3nF, I_F=0←→5mA, V_{CC}=30V	-	-	350	
Output Rise Time (10 to 90%)	t_r①	R_g=47Ω, C_g=3nF, I_F=0→5mA, V_{CC}=30V	-	50	-	
Output Fall Time (90 to 10%)	t_f①	R_g=47Ω, C_g=3nF, I_F=5→0mA, V_{CC}=30V	-	50	-	
Common Mode Transient Immunity at High Level Output	$\|CM_H\|$②	I_F=5mA V_{CC}=30V, T_a=25 , V_O(min)=26V V_{CM}=1000Vpp	±20	±25	-	kV/μs

Common Mode Transient Immunity at Low Level Output	$\|CM_L\|$③	I_F=0mA V_{CC}=30V, T_a=25 , V_O(max)=1V V_{CM}=1000Vpp	±20	±25	-	kV/μs

All Typical values at T_a=25℃

: Input signal (f=25kHz,duty=50%, tr=tf=5ns or less). C_L is less than 15 pF which includes probe and stray wiring capacitance.

: CM_H is the maximum rate of fall of the common mode voltage that can be sustained with the output voltage in the logic high state (VO 26V).

: CML is the maximum rate of rise of the common mode voltage that can be sustained with the output voltage in the logic low state (VO 1V).

Input On-state Current	$I_{F(ON)}$	6.5	-	10	mA
Input Off-state Voltage	$V_{F(OFF)}$	0	-	0.8	V
Supply Voltage	V_{CC}	15	-	30	V
Operating Frequency	f	-	-	25	kHz

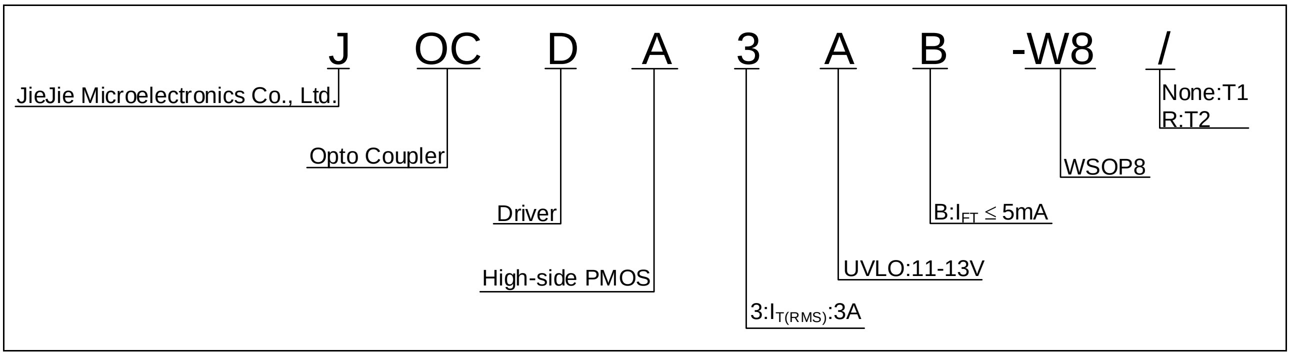
: The recommended operating conditions are given as a design guide necessary to obtain the intended performance of the device. Each parameter is an independent value. When creating a system design using this device, the electrical characteristics specified in this datasheet should also be considered.

: Aceramic capacitor(0.1μF) should be connected between pin 6 (V_{CC}) and pin 4 (GND) to stabilize the operation of a high-gain linear amplifier. Otherwise, this photocoupler may not switch properly. The bypass capacitor should be placed within 1 cm of each pin.

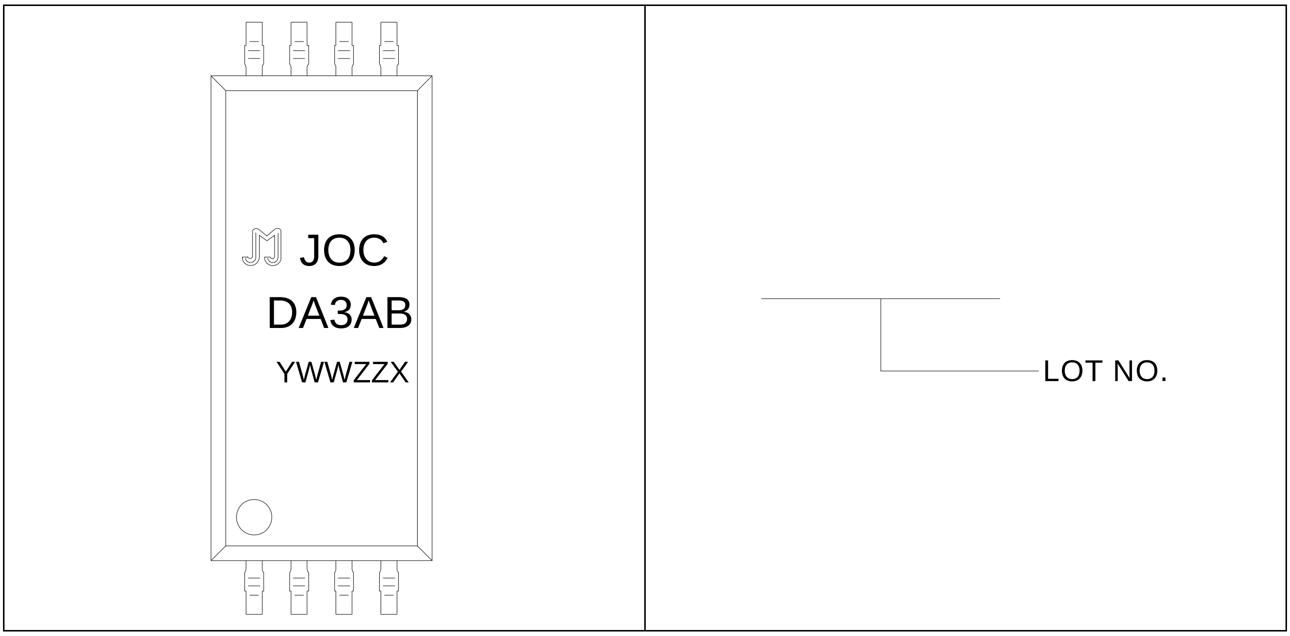
: The rise and fall times of the input on-current should be less than 0.5 μs.

: If the rising slope of the supply voltage (V_{CC}) for the detector is steep, stable operation of the internal circuits cannot be guaranteed. Be sure to set 3 V/μs or less for a rising slope of the V_{CC}.

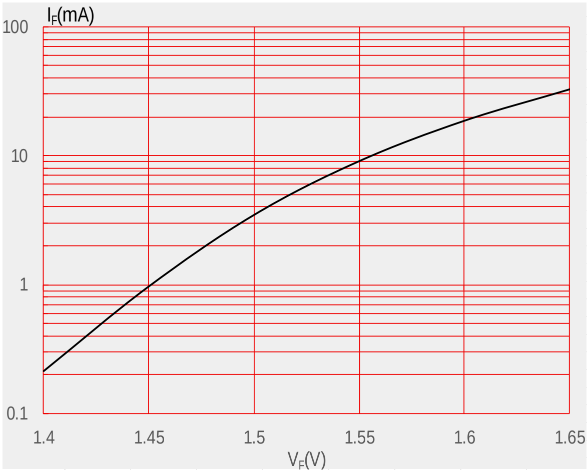
: Denotes the operating range, not the recommended operating condition.



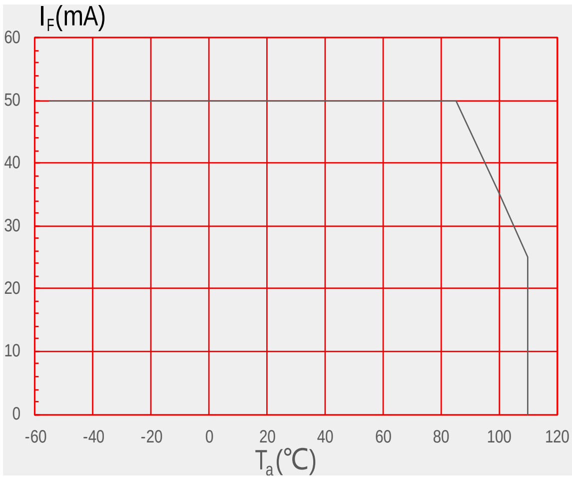
None/R	1200 Units/Reel



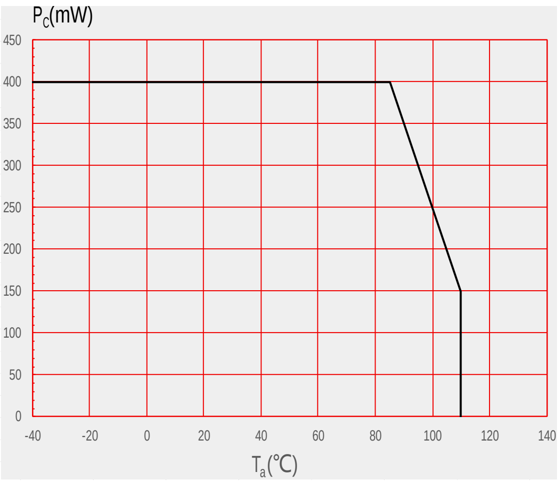
Forward Current vs. Forward Voltage



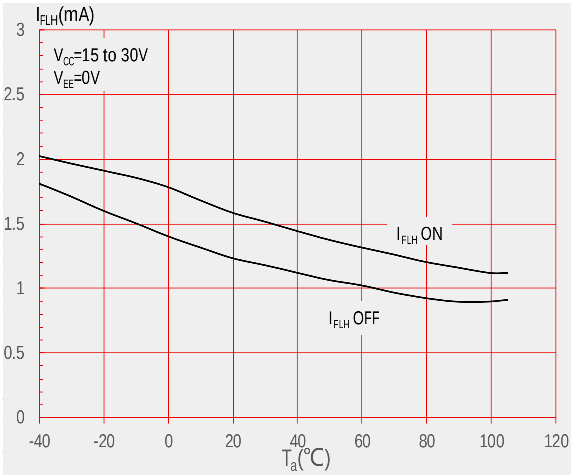
Max. Allowable LED Forward Current vs. Ambient Temperature



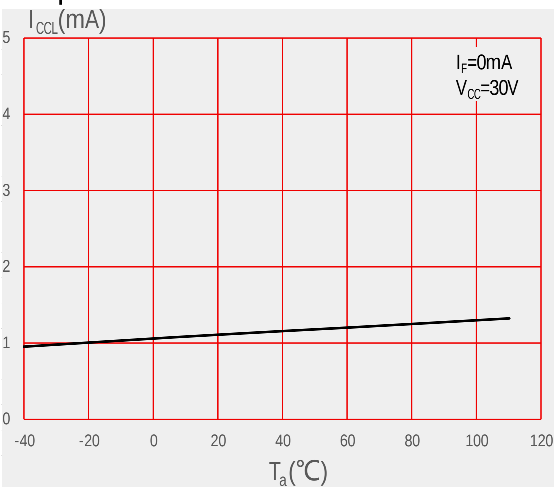
Collector Power Dissiption vs. Ambient Temperature



Threshold Input Current vs. Ambient Temperature

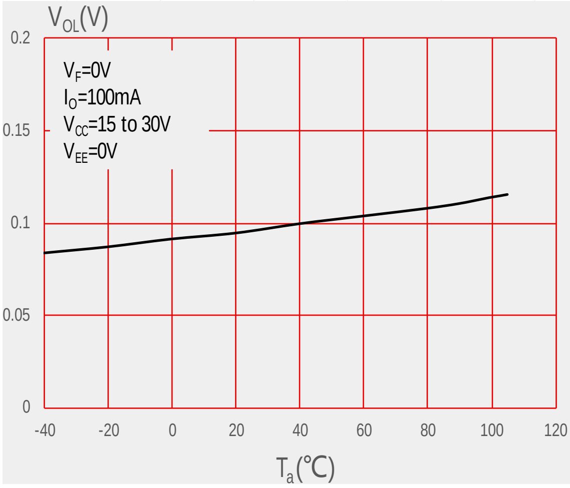


Low-level Supply Current vs. Ambient Temperature

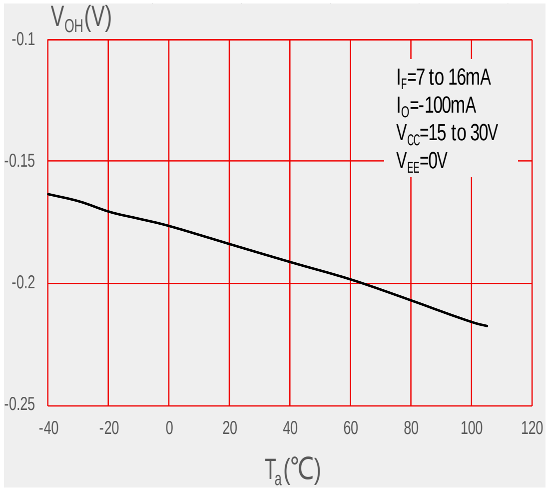


High-level Supply Current vs. Ambient Temperature

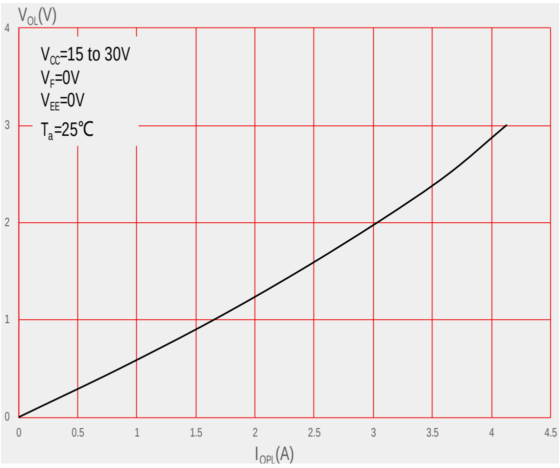
Low-level Output Voltage vs. Ambient Temperature



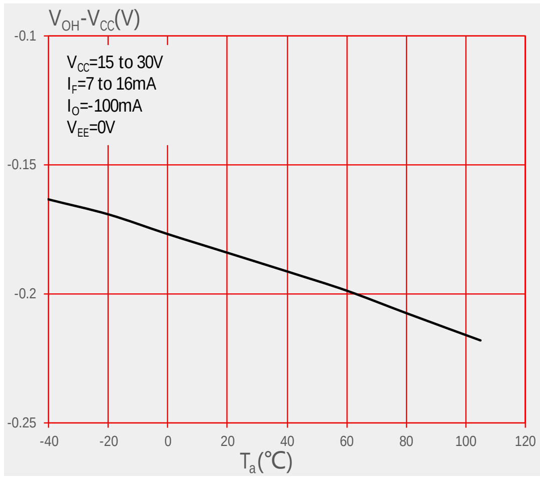
High-level Output Voltage vs. Ambient Temperature



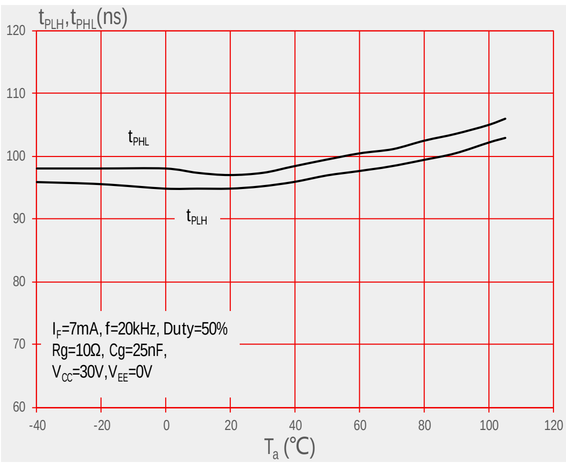
Peak Low-level Output Current vs. Low-level Output Voltage



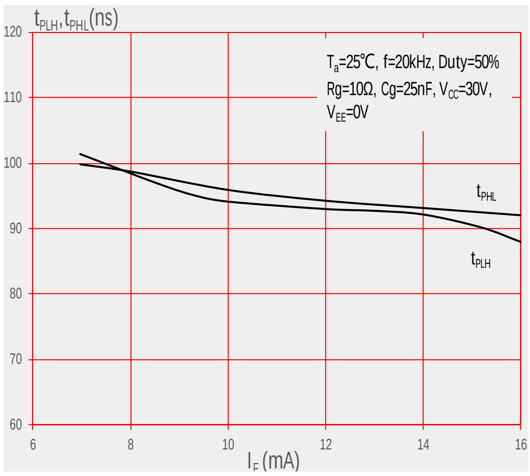
High-level Output Voltage Drop vs. Ambient Temperature

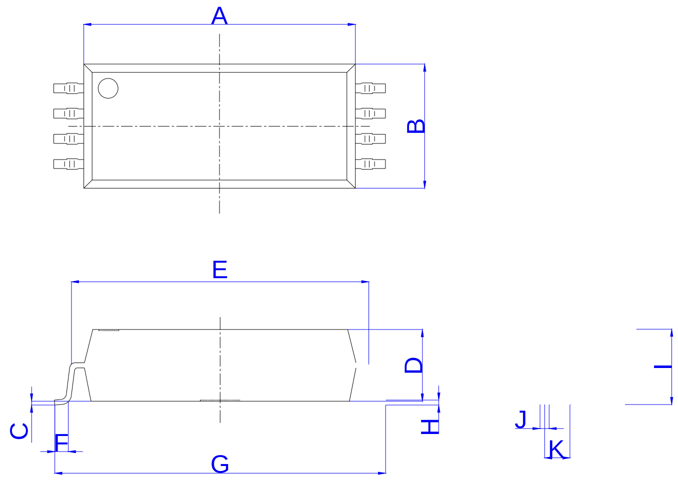


Propagation Delay Time vs. Ambient Temperature

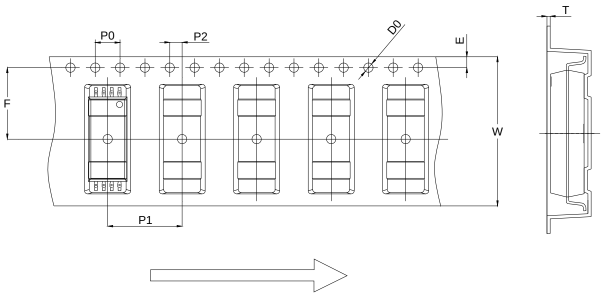


Propagation Delay Time vs. Forward Current

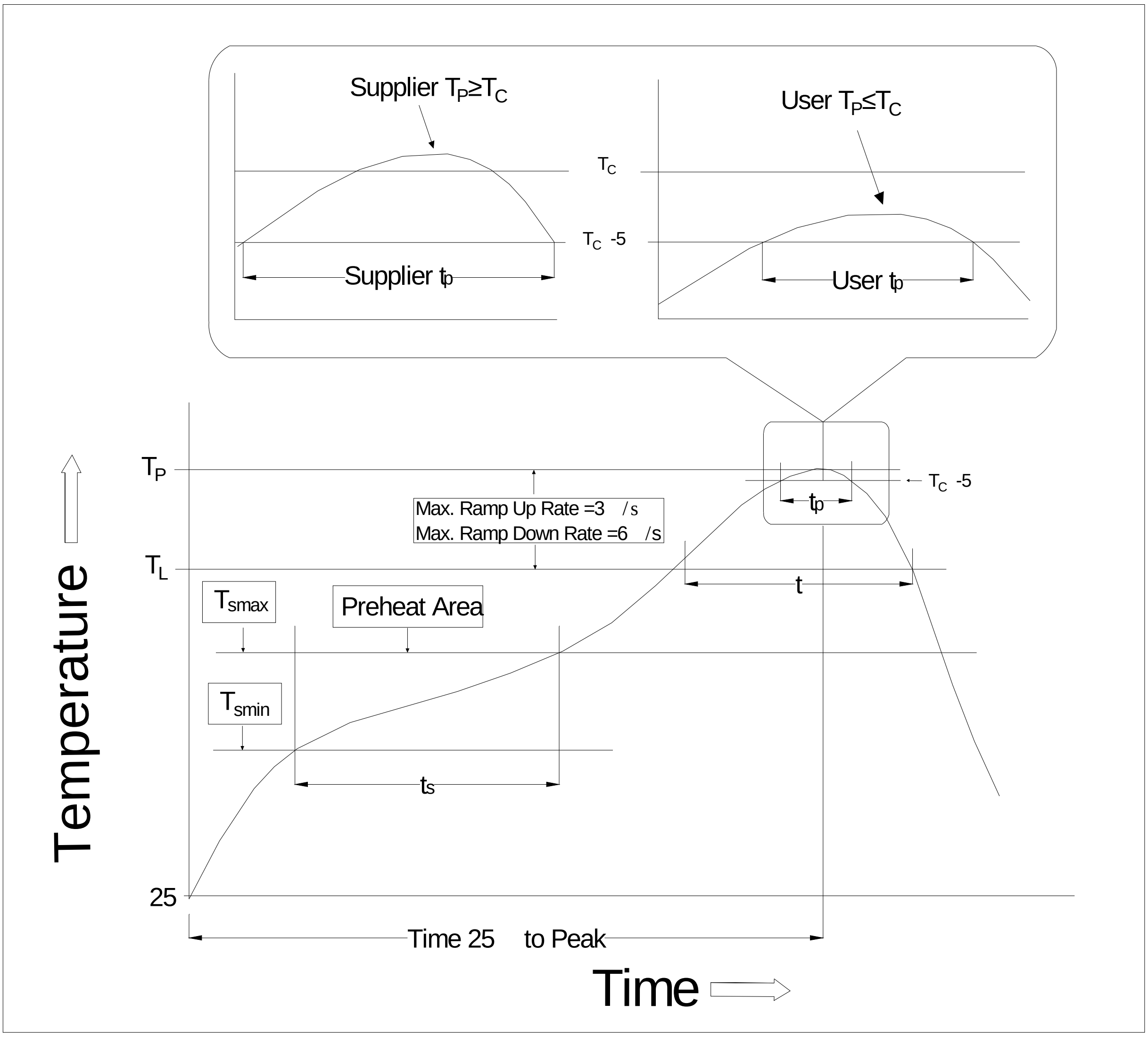




Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	13.50		13.70	0.531		0.539
B	6.15		6.35	0.242		0.250
C	0.10		0.30	0.004		0.012
D	3.50		3.70	0.138		0.146
E	14.71		15.31	0.579		0.603
F	0.52		1.02	0.020		0.040
G	16.36		16.86	0.644		0.664
H	0.10		0.40	0.004		0.016
I	3.65		3.95	0.144		0.156
J	0.307		0.607	0.012		0.024
K	1.02		1.52	0.040		0.060



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
D0	1.40	1.50	1.60	0.055	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	11.40	11.50	11.60	0.449	0.453	0.457
T	0.35	0.40	0.45	0.014	0.016	0.018
W	23.70	24.00	24.30	0.933	0.945	0.957



Temperature Min. (Tsmin)	100	150
Temperature Max. (Tsmax)	150	200
Time (ts) from (Tsmin to Tsmax)	60-120 seconds	60-120 seconds
Ramp-up Rate (tL to tP)	3 /second max.	3 /second max.
Liquidus Temperature (TL)	183	217
Time (tL) Maintained Above (TL)	60-150 seconds	60-150 seconds
Peak Body Package Temperature	235 +0 /-5	260 +0 /-5
Time (tP) within 5 of 260	20 seconds	30 seconds
Ramp-down Rate (TP to TL)	6 /second max.	6 /second max.
Time 25 to Peak Temperature	6 minutes max.	8 minutes 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 spi d [illegible]