JOC247

Rev.A.1.0

DESCRIPTION:

The JOC247 is a photoelectric coupler composed of light-emitting diode and photo transistor. It is packaged in a 16-pin at SSOP16. The products are widely used in DC-DC converter, communications equipment, programmable controller and signal transmission.

MAIN FEATURES

Current transfer ratio: 50%-600% (I_F=5mA, V_{CE}=5V, T_a=25 -)
High isolation voltage between input and output(V_{ISO}=3750 V_{rms})
Collector-emitter breakdown voltage BV_{CEO} • 9
Operating temperature range -55°C to 110°C
UL ÃVDE ÃCQC approvals

ABSOLUTE MAXIMUM RATINGS (Temperature=25°C)

Parameter		Symbol	Value	Unit
	Forward Current	I_F	60	mA
	Peak Forward Current	I_{FP}	1 7	A
Input 6	Reverse Voltage	V		

u(t)-4 pur 6nWA

Characteristics Curves

FIG.1: Forward Current vs. Ambient Temperature

FIG.2: Collector Power Dissiption vs. Ambient Temperature

Test Circuits

FIG.11: Test Circuits of Response Time

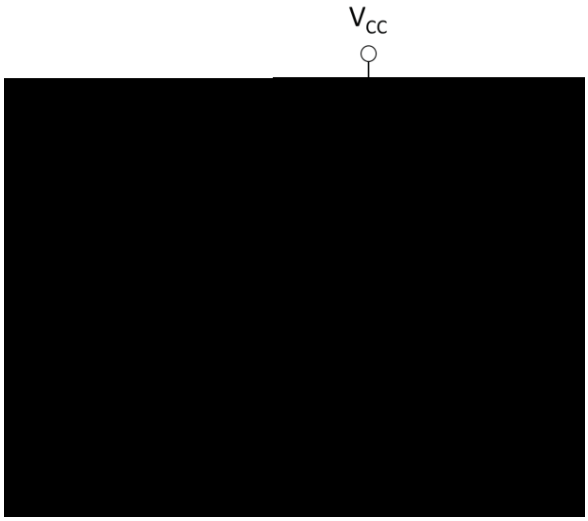


FIG.12: Curves of Response Time

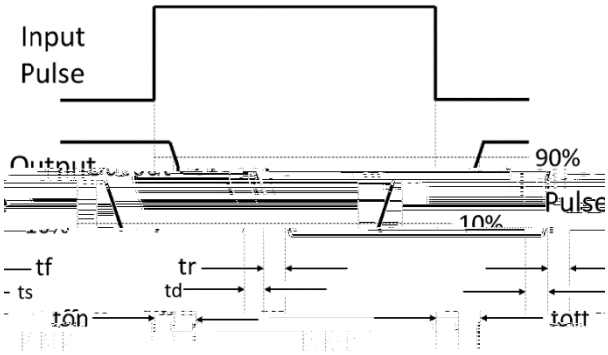
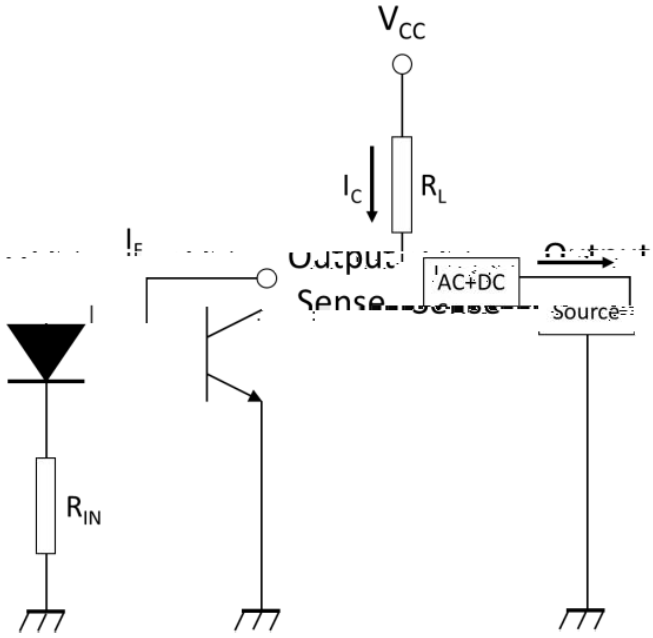
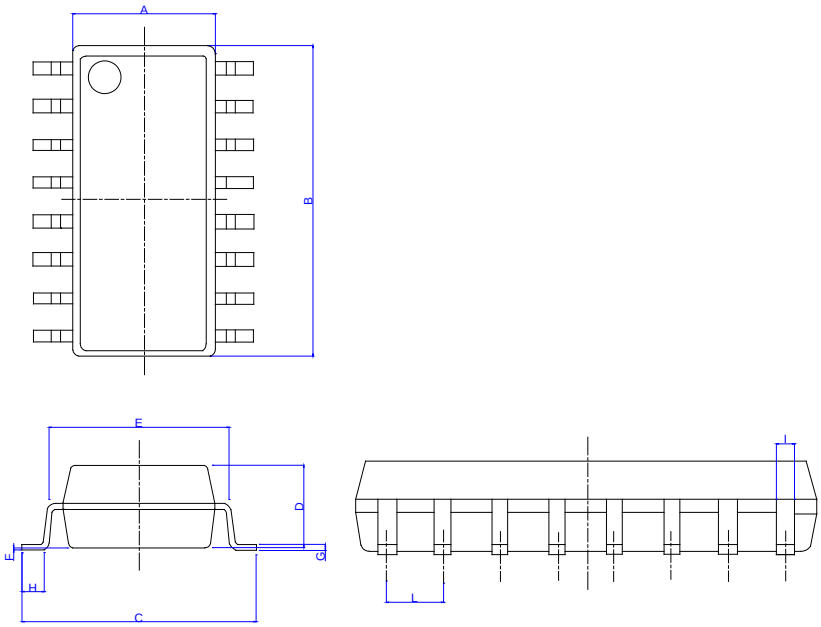


FIG.13: Test Circuits of Frequency Response

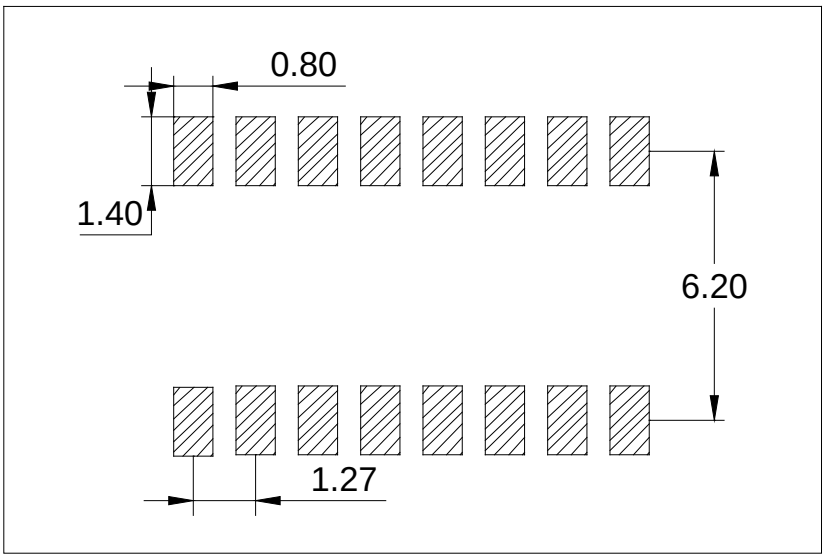


Package Dimension (Unit: mm Å



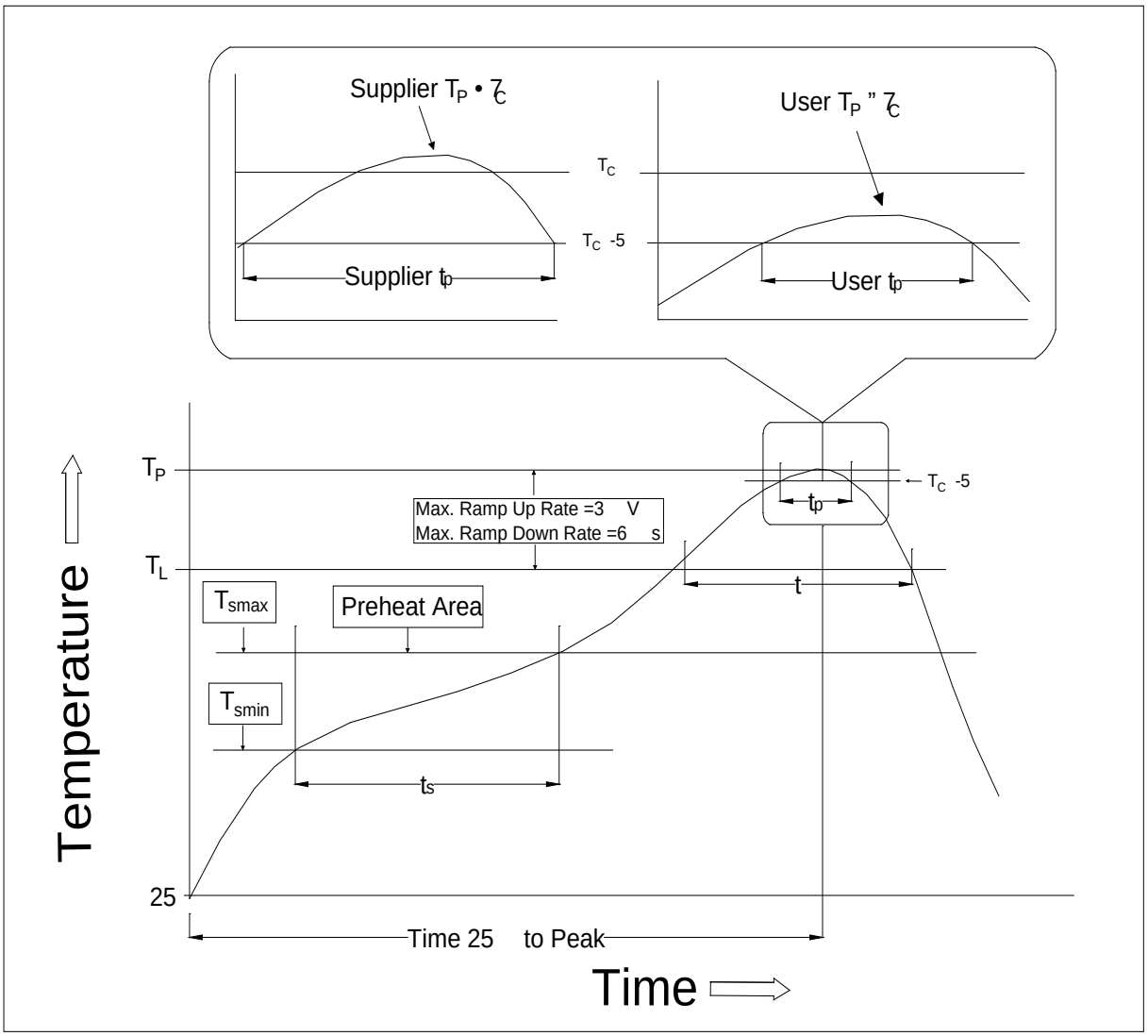
Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.20		4.80	0.165		0.189
B	9.99		10.59	0.393		0.417
C	6.70		7.30	0.264		0.287
D	1.80		2.40	0.071		0.094
E	5.00		5.60	0.197		0.220
F	0.00		0.20	0.000		0.008
G	0.10		0.30	0.004		0.012
H	0.40			0.016		
I	0.30		0.50	0.012		0.020
L	1.02		1.52	0.040		0.060

RECOMMENDED SOLDER MASK (Dimensions in mm unless otherwise stated)



CARRIER TAPE SPECIFICATIONS R

REFLOW INFORMATION



Profile Feature	Sn-Pb Assembly Profile	Pb-Free Assembly Profile
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	10 seconds	10 seconds
Ramp-down Rate (TP to TL)	3-6 / second	3-6 / second
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 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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