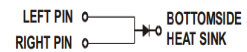
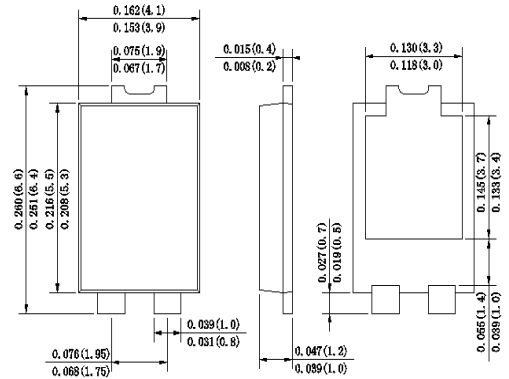




Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Built-in strain relief,ideal for automated placement
- ◆ Low forward voltage drop
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed
250°C/10 seconds at terminals

TO-277B



Mechanical Data

Case : Molded plastic body
 Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
 Polarity : Polarity symbol marking on body
 Mounting Position : Any
 Weight : 0.003 ounce, 0.092 grams

Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz,resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	SP1040L	SP1045L	SP1050L	SP1060L	SP1080L	SP10100L	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	40	45	50	60	80	100	V
Maximum RMS voltage	V _{RMS}	28	31.5	35	42	56	70	V
Maximum DC blocking voltage	V _{DC}	40	45	50	60	80	100	V
Maximum average forward rectified current at T _L =100°C	I _(AV)	10.0						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	175.0						A
Maximum instantaneous forward voltage at 2.0A at 10.0A	V _F	0.35 0.45		0.40 0.55		0.45 0.70		V
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =125°C	I _R	0.5 50				0.2 20		mA
Typical thermal resistance	R _{qJA}	60.0						°C/W
Operating junction temperature range	T _J	-55 to +150						°C
Storage temperature range	T _{STG}	-55 to +150						°C



Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

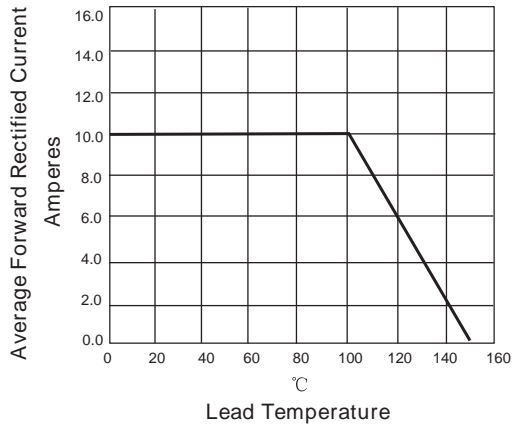


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

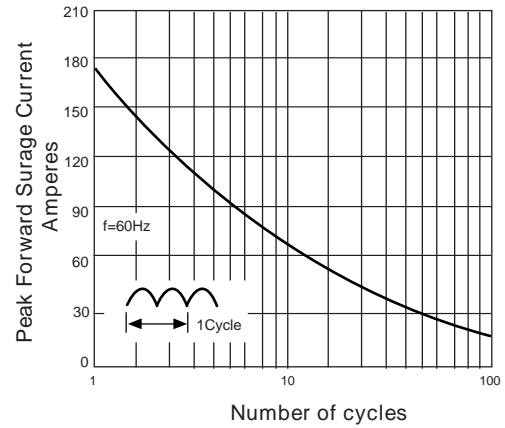


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

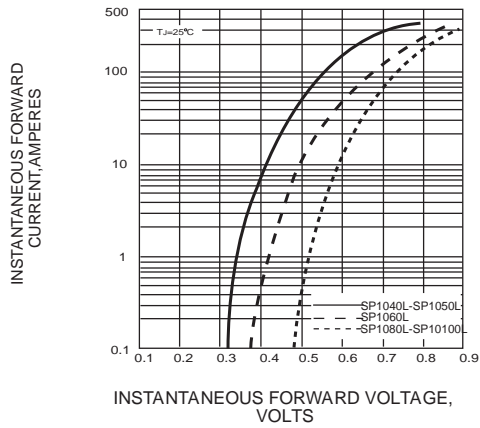
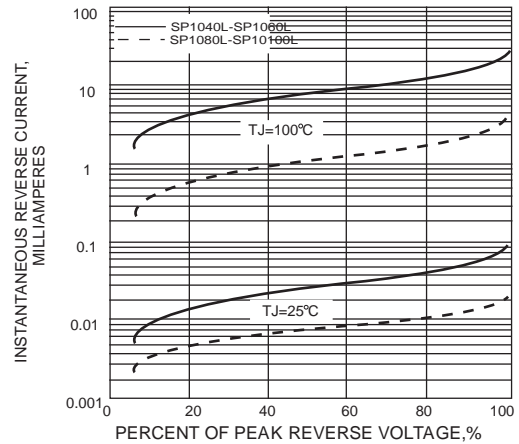
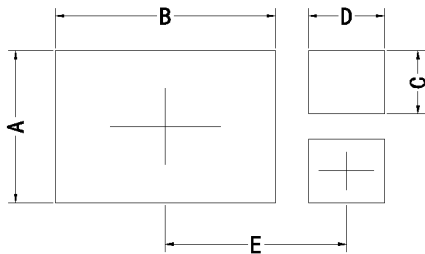


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



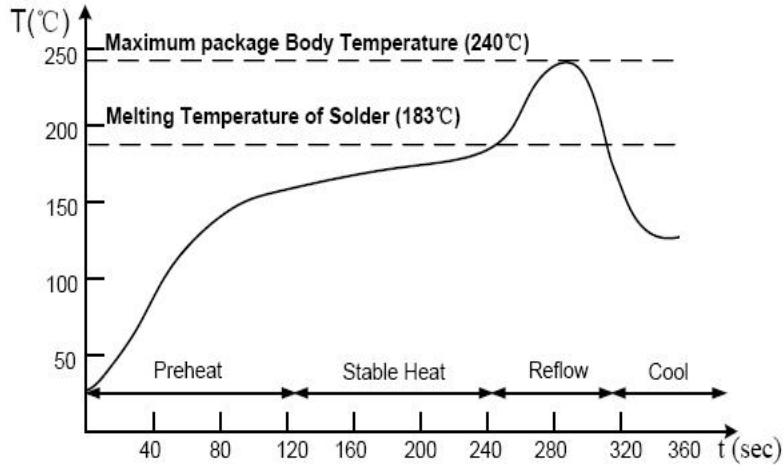
Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	3.60	0.142
B	5.35	0.211
C	1.50	0.059
D	1.85	0.073
E	4.30	0.169



Suggested Soldering Temperature Profile

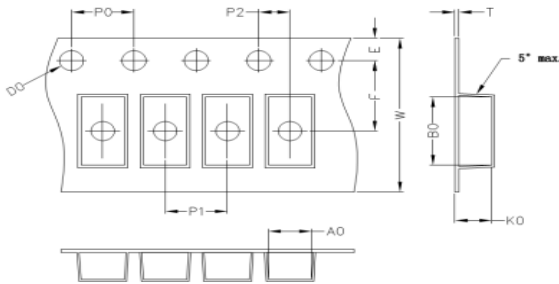


Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 265°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Package Information

Carrier Dimension(mm)



A0	B0	K0	D0	E	F
4.40	6.90	1.30	1.55	1.75	7.50
P0	P1	P2	T	W	Tolerance
4.0	8.0	2.0	0.25	12	0.1

Package Specifications

Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (Kpcs)	Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
TO-277B	13'	330	5.0	340	10.0	360*360*360	80