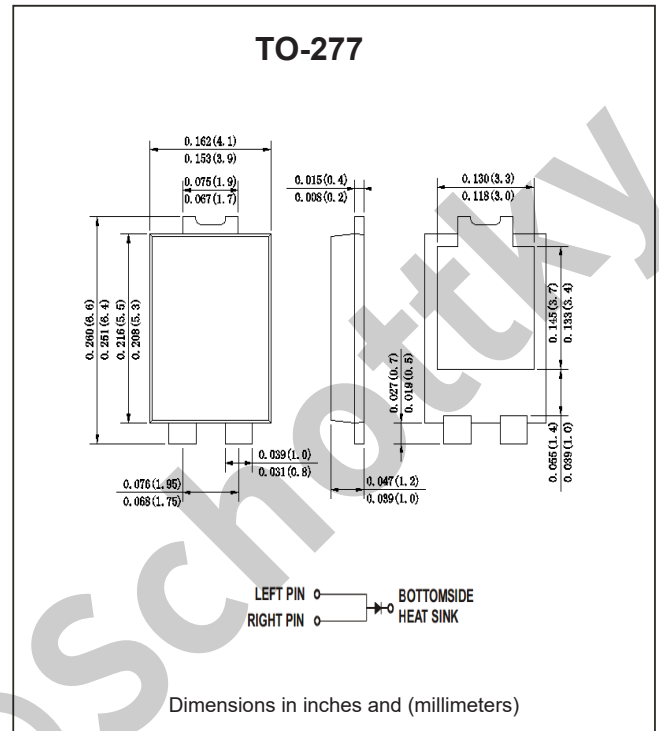


Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 250°C/10 seconds at terminals

MECHANICAL DATA

- 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



Electrical Characteristic

Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SB2040L	SB2045L	SB2050L	SB2060L	SB2080L	SB20100L	Unit
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 $T_c = 75^\circ\text{C}$	$I_F(AV)$	20.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	250						A
Typical thermal resistance (Note 1)	$R_{\theta JL}$ $R_{\theta JC}$ $R_{\theta JA}$	3 8 60						$^\circ\text{C/W}$
Typical thermal resistance (Note 2)	$R_{\theta JA}$	60						$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 to +150						$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150						$^\circ\text{C}$

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SB2040L	SB2045L	SB2050L	SB2060L	SB10150L	SB10200L	Unit
Maximum instantaneous forward voltage at 25°C at 5A at 10A	V_F	0.35 0.45		0.40 0.55		0.45 0.70		V
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_j = 100^\circ\text{C}$	I_R		0.5 50			0.2 20		mA

NOTES:

1. Polyimide PCB, 2oz. Copper. Cathode pad dimensions 18.8mm x 14.4mm. Anode pad dimensions 5.6mm x 14.4mm.
2. FR-4 PCB, 2oz. Copper.

RoHS Compliant and Halogen Free

Ratings and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

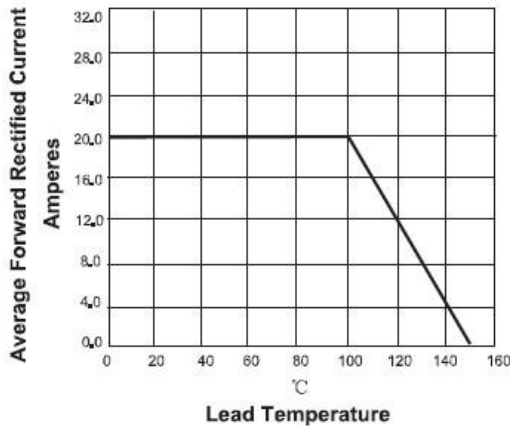


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

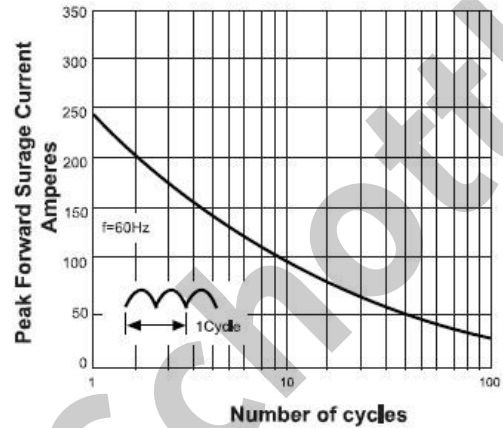


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

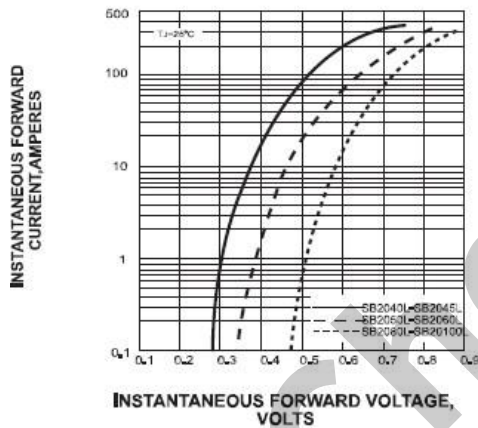
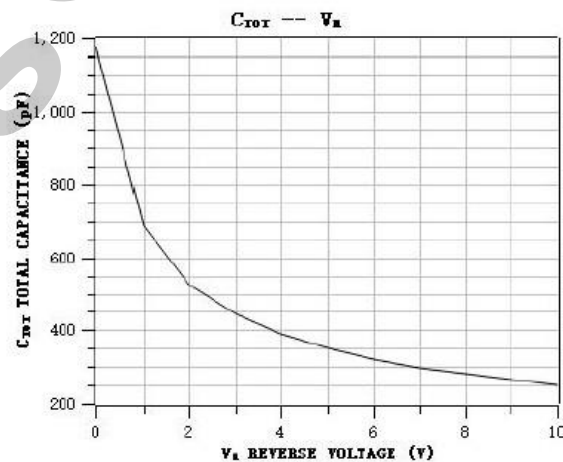
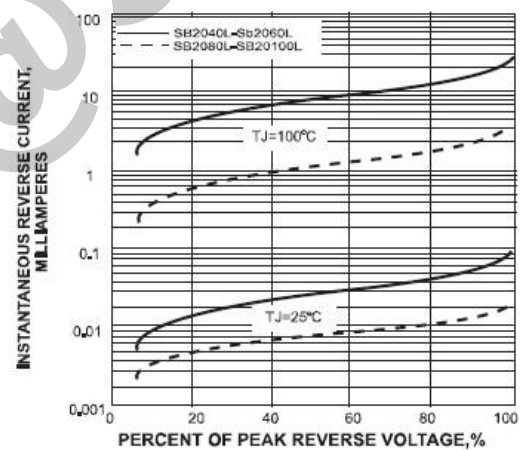
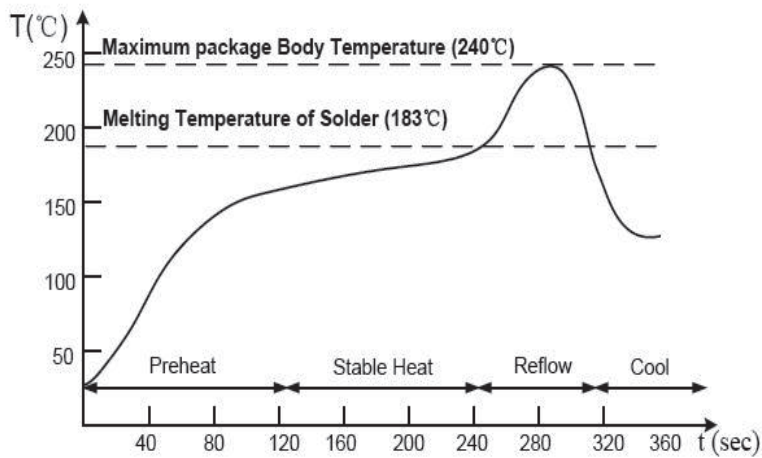


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



The curve graph is for reference only can't be the basis for judgment(曲线图仅供参考)!

Suggested Soldering Temperature Profile

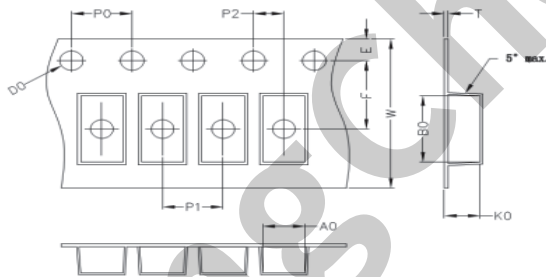


Note

- 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.

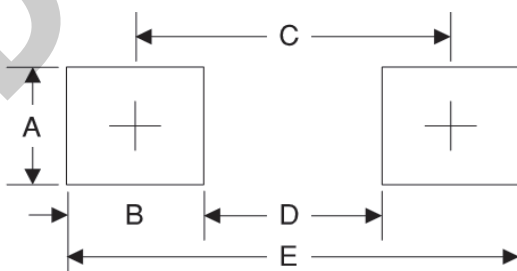
Package Information

Carrier Dimension(mm)



A0	B0	K0	D0	E	F
2.80	5.30	2.36	1.55	1.75	5.50
P0	P1	P2	T	W	Tolerance
4.0	4.0	2.0	0.25	12	0.1

Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.68	0.066
B	1.52	0.060
C	3.90	0.154
D	2.41	0.095
E	5.45	0.215

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