

SURFACE MOUNT SCHOTTKY BARRIER DIODES

Features

1. Schottky Barrier Chip
2. High Thermal Reliability
3. Patented Super Barrier Rectifier Technology
4. High Forward Surge Capability
5. Ultra Fow Power Loss,High Efficiency Excellent
6. High temperature Stability Plastic material-UL flammability 94V-0

Mechanical Data

Case : JEDEC TO-277 Molded plastic body

Terminals :Plated Leads Solderable per

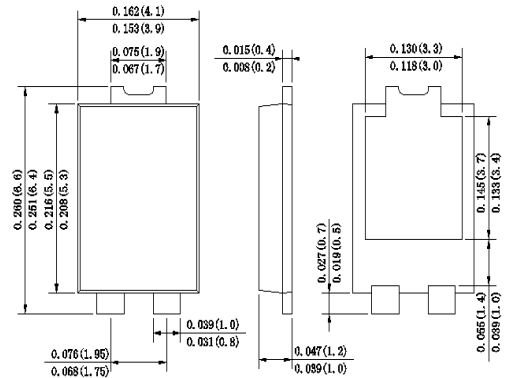
MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.003 ounce, 0.092 grams

TO-277



LEFT PIN  BOTTOMSIDE
RIGHT PIN  HEAT SINK

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	SB1535L	SB1545L	SB1550L	SB1560L	SB15100L	SB15150L	SB15200L	UNIT
Marking Code		SB1535L	SB1545L	SB1550L	SB1560L	SB15100L	SB15150L	SB15200L	
Maximum repetitive peak reverse voltage	V _{RRM}	35	45	50	60	100	150	200	V
RMS Reverse voltage	V _{RMS}	25	32	35	42	70	105	140	V
Maximum DC blocking voltage	V _{DC}	35	45	50	60	100	150	200	V
Average Rectified Output Current See Fig.1	I _(O)	15							A
Non-Repetitive Peak Forward Surge8.3ms Single Half Sine-Wave Superimposed on rated load(JEDEC	I _{FSM}	150							A
Forward Voltage Drop at 15A T _A =25℃	V _F	0.50	0.55		0.70	0.80	0.85	V	
Peak reverse curent at rated DC T _A =25℃ blocking voltage (Note 1)	I _R	0.3							mA
		30			50				
Typical thermal resistance	R _{θJC}	3.0							℃/W
Operating junction temperature range	T _J	-65 to +150							℃
Storage temperature range	T _{STG}	-65 to +150							℃

Note: 1. Pulse test: 300us pulse width, 1% duty cycle.
2. The thermal resistance from junction to case.
3. The typical data above is for reference only.

Ratings And Characteristic Curves

FIG.1-FORWARD CURRENT DERATING CURVE

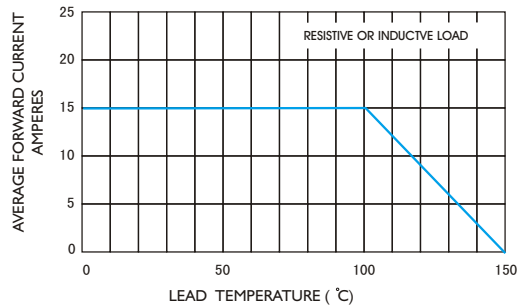


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

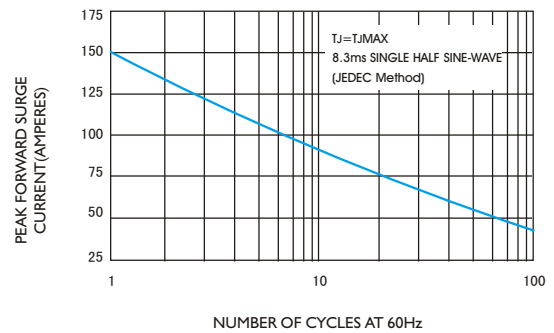


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

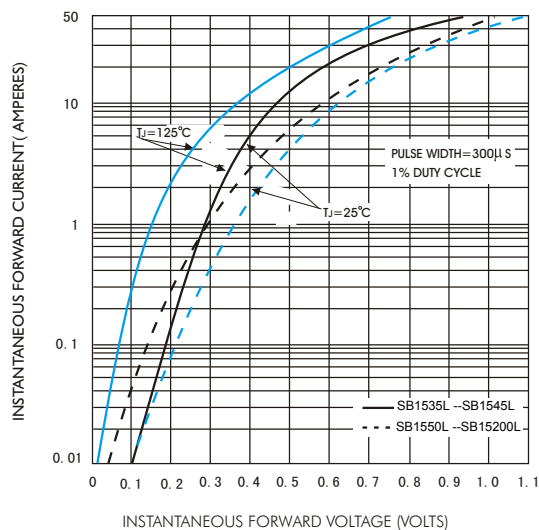


FIG.4-TYPICAL REVERSE CHARACTERISTICS

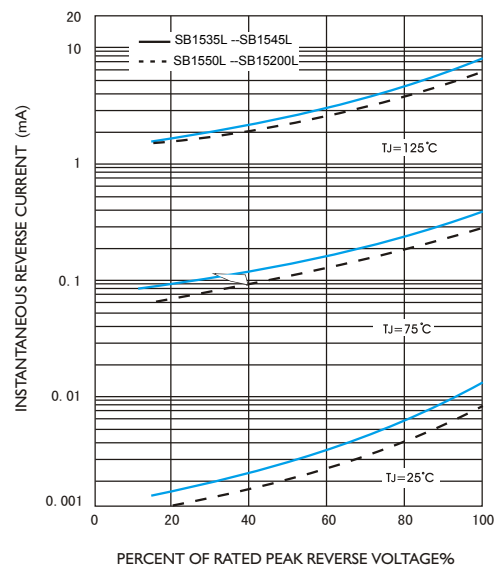


FIG.5-TYPICAL JUNCTION CAPACITANCE

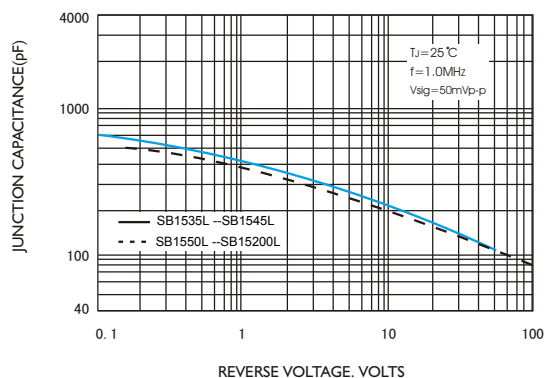
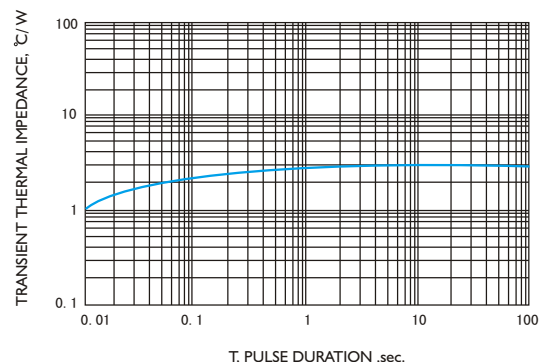
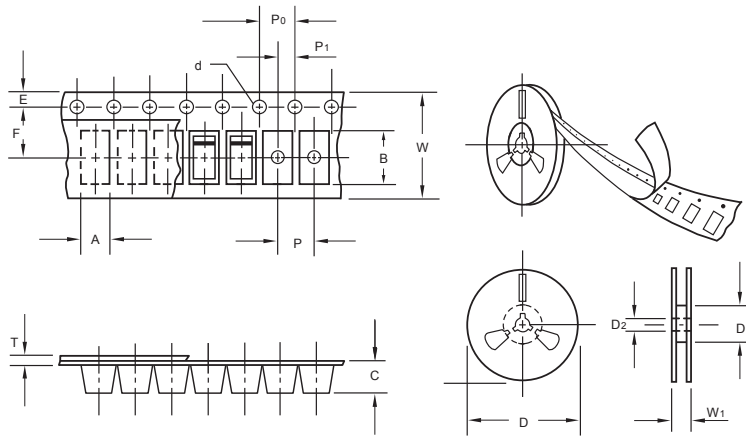


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



Packing information

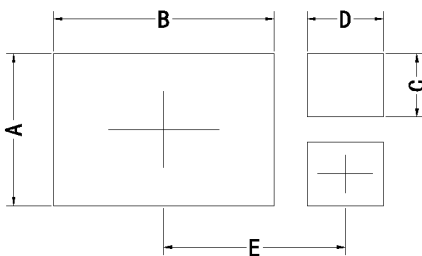


unit:mm

Item	Symbol	Tolerance	TO-277
Carrier width	A	0.1	4.45
Carrier length	B	0.1	7.0
Carrier depth	C	0.1	1.60
Sprocket hole	d	0.05	1.55
11" Reel outside diameter	D	2.0	280.00
11" Reel inner diameter	D1	min	50.0
Feed hole diameter	D2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	7.50
Punch hole pitch	P	0.1	8.00
Sprocket hole pitch	P0	0.1	4.00
Embossment center	P1	0.1	2.00
Overall tape thickness	T	0.1	0.25
Tape width	W	0.3	12.00
Reel width	W1	1.0	12.30

Note: Devices are packed in accordance with EIA standard RS-481-A and specifications listed above.

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