

Features

- Schottky Barrier Chip
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Forward Surge Capability
- Ultra Low Power Loss, High Efficiency
- Excellent High Temperature Stability

Mechanical Data

- Case: TO-277 Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.093 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS/Lead Free Version

Maximum Ratings and Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	SB1545L	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	45	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Average Rectified Output Current (Note 1) @ $T_L = 90^{\circ}\text{C}$	I_o	15.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) @ $T_L = 75^{\circ}\text{C}$	I_{FSM}	275	A
Forward Voltage Drop @ $I_F = 15\text{A}, T_j = 25^{\circ}\text{C}$	V_{FM}	0.55	V
Peak Reverse Current @ $V_F = 45\text{V}, T_j = 25^{\circ}\text{C}$ At Rated DC Blocking Voltage @ $V_F = 45\text{V}, T_j = 100^{\circ}\text{C}$	I_{RM}	0.3 15	mA
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$ $R_{\theta JL}$	80 15	$^{\circ}\text{C/W}$
Operating Temperature Range	T_j	-55 to +150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}\text{C}$

Note: 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.

2. FR-4 PCB, 2oz. Copper, minimum recommended pad layout .

3. Polyimide PCB, 2oz. Copper. Cathode pad dimensions 18.8mm x 14.4mm. Anode pad dimensions 5.6mm x 14.4mm.

Typical Characteristics

Fig.1 - Forward Current Derating Curve

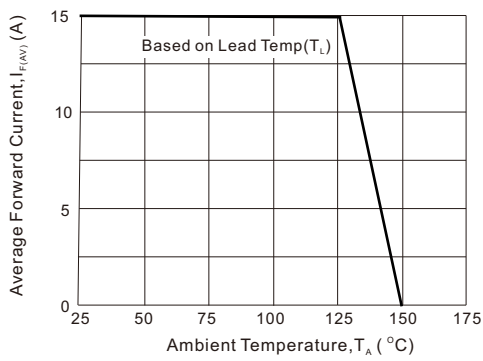


Fig2 : Instantaneous Forward Voltage

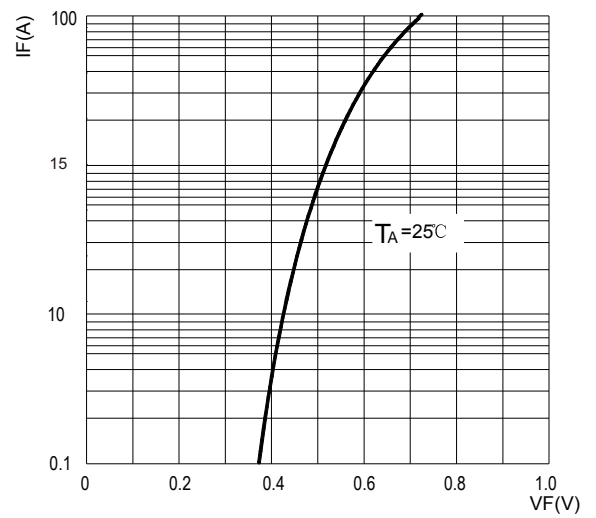


Fig3: Surge Forward Current Capadility

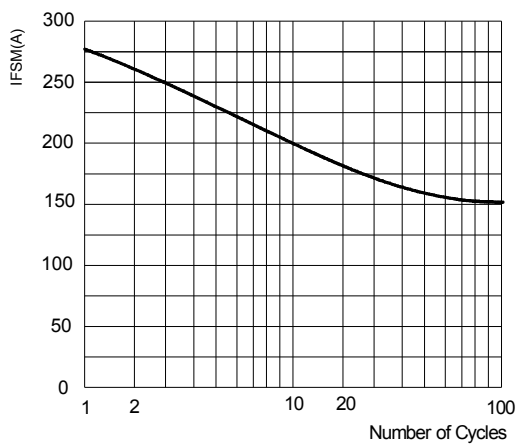
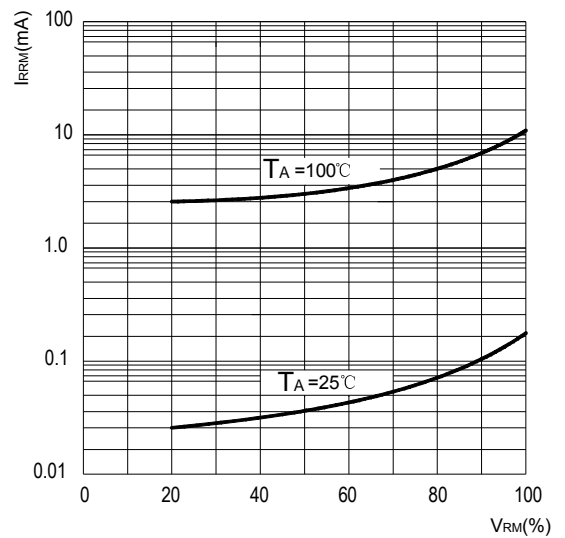


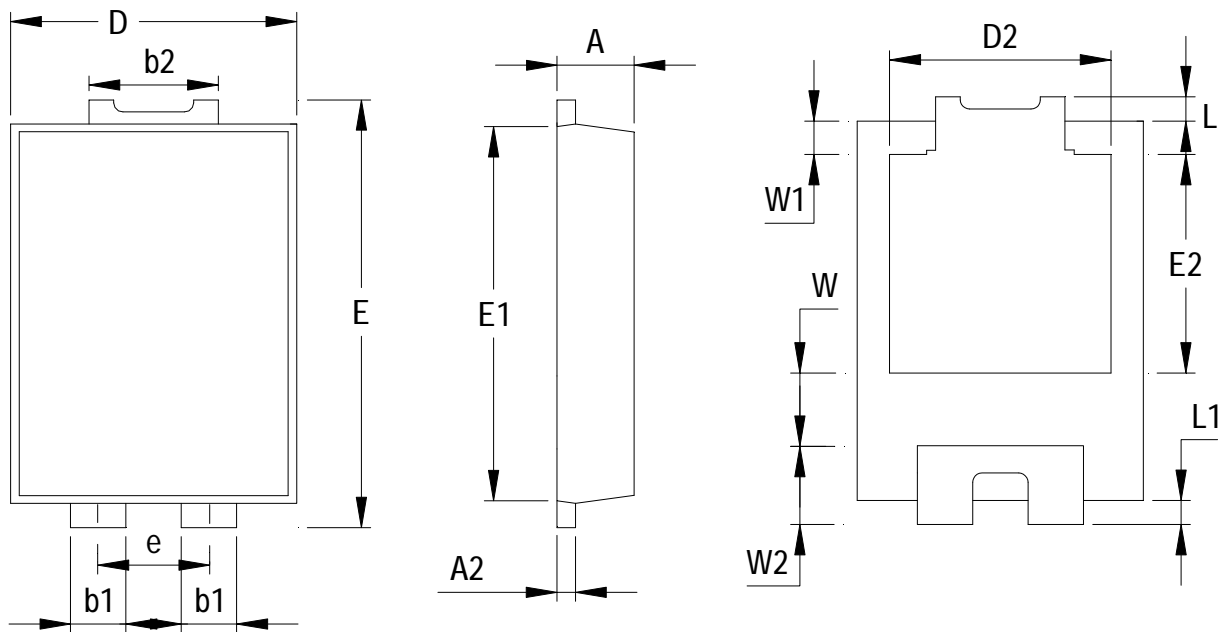
Fig4: Typical Reverse Characteristics



Package Dimension

TO-277

Units: mm



NO	Dimensions	NO	Dimensions
A	1.25±0.05	e	1.8Typ
A2	0.30±0.02	E1	6.25±0.05
b1	0.9±0.05	E2	3.6±0.2
b2	2.1±0.05	L/L1	0.4±0.05
D	4.65±0.05	W	1.2±0.2
D2	3.60Typ	W1	0.55±0.15
E	7.05±0.1	W2	1.3±0.2
All Dimensions in mm			