SB0540L THRU SB05200L

Reverse Voltage - 40 to 200 Volts Forward Current -5.0 Ampere

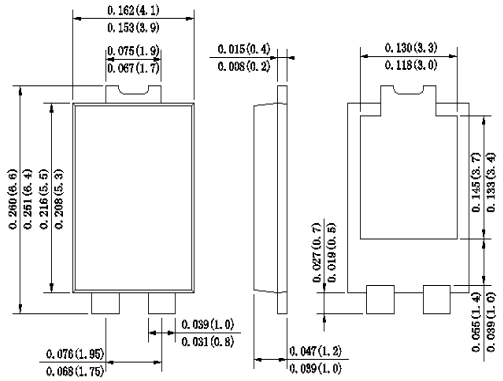
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

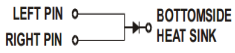
Features

TO-277

RoHS COMPLIANT

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





Dimensions in inches and (millimeters)

Mechanical Data

Case : JEDEC TO-277 Molded plastic body
Terminals :Plated Leads Solderable per MIL-STD-202,Method 208
Polarity : Polarity symbol marking on body
Mounting Position : Any
Weight : 0.003 ounce, 0.092 grams

Maximum Ratings And Electrical Characteristics

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

Parameter	SYMBOLS	SB 0540L	SB 0545L	SB 0550L	SB 0560L	SB 0580L	SB 05100L	SB 05150L	SB 05200L	UNIT
Marking Code		MDD SB 0540L	MDD SB 0545L	MDD SB 0550L	MDD SB 0560L	MDD SB 0580L	MDD SB 05100L	MDD SB 05150L	MDD SB 05200L	
Maximum repetitive peak reverse voltage	V_{RRM}	40	45	50	60	80	100	150	200	V
Maximum working peak reverse voltage	V_{RWM}									
Maximum DC blocking voltage	V_{DC}									
RMS Reverse voltage	V_{RMS}	28	32	35	42	56	70	105	140	V
Average Rectified Output Current	$I_{(O)}$	5.0								
Non-Repetitive Peak Forward Surge8.3ms Single Half Sine-Wave Superimposed on rated load(JEDEC Method)	I_{FSM}	120								A
Forward Voltage Drop at 5.0A T_A=25℃	V_F	0.55		0.70		0.85		0.90	0.92	V
Peak reverse curent T_A=25℃	I_R	0.3				0.05				mA
at rated DC blocking voltage T_A=125℃		15				5				
Typical thermal resistance	$R_{\theta JA}$	80.0								℃/W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150								℃

Note:1.P.C.B. mounted with 2.0x2.0"(5.0x5.0cm) copper pad areas.
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3.The typical data above is for reference only.

Download from alldatasheet.com

Ratings And Characteristic Curves

Fig.1 - Forward Current Derating Curve

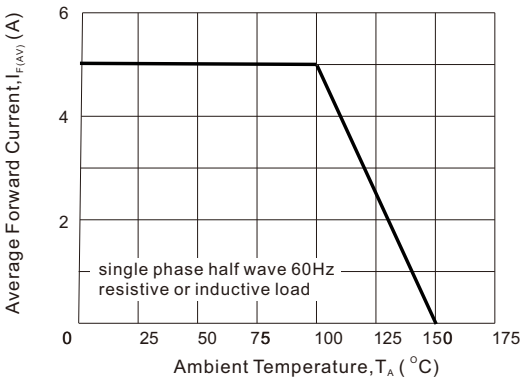


Fig2 : Instantaneous Forward Voltage

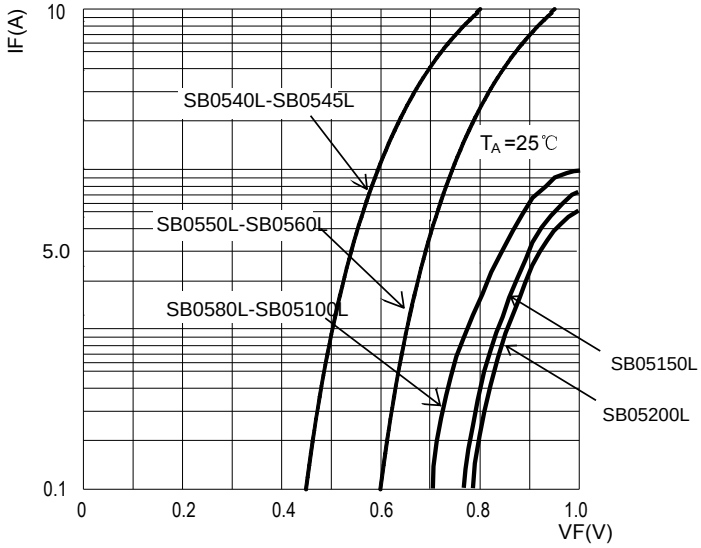


Fig3: Surge Forward Current Capadility

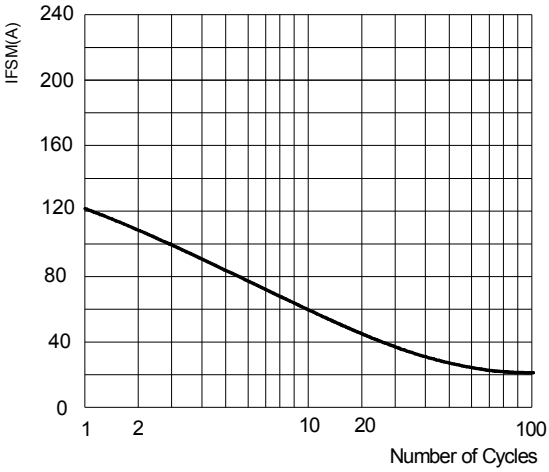
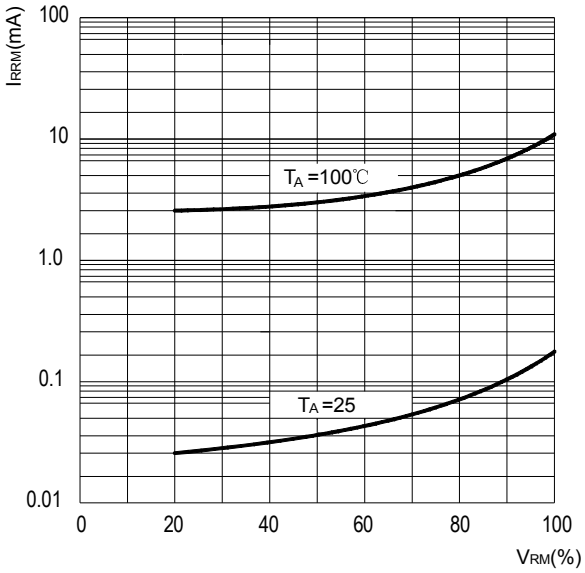


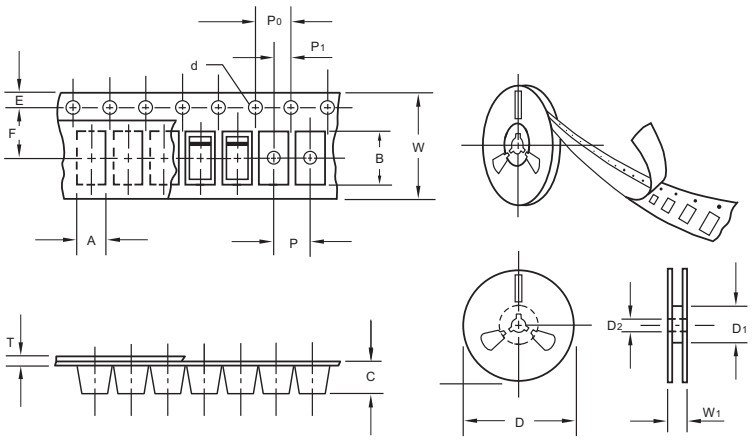
Fig4: Typical Reverse Characteristics



The curve above is for reference only.

Download from alldatasheet.com

Packing information



unit:mm

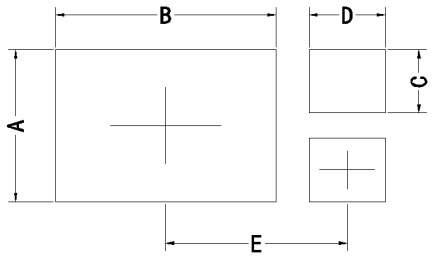
Item	Symbol	Tolerance	TO-277
Carrier width	A	0.1	4.45
Carrier length	B	0.1	7.0
Carrier depth	C	0.1	1.60
Sprocket hole	d	0.05	1.55
11" Reel outside diameter	D	2.0	280.00
11" Reel inner diameter	D_1	min	50.0
Feed hole diameter	D_2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	7.50
Punch hole pitch	P	0.1	8.00
Sprocket hole pitch	P_0	0.1	4.00
Embossment center	P_1	0.1	2.00
Overall tape thickness	T	0.1	0.25
Tape width	W	0.3	12.00
Reel width	W_1	1.0	12.30

Note:Devices are packed in accor dance with EIA standar RS-481-A and specifications listed above.

Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
TO-277	11"	3,000	5.0	6,000	340*340*43	280	380*380*380	48,000	9.0

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

Important Notice and Disclaimer

Microdiode Electronics (Jiangsu) reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design,purchase or use.

Microdiode Electronics (Jiangsu) makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, not does Microdiode Electronics (Jiangsu) assume any liability for application assistance or customer product design. Microdiode Electronics (Jiangsu) does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of Microdiode Electronics (Jiangsu).

Microdiode Electronics (Jiangsu) products are not authorized for use as critical components in life support devices or systems without express written approval of Microdiode Electronics (Jiangsu).

Download from alldatasheet.com