LiKun-micro electronics

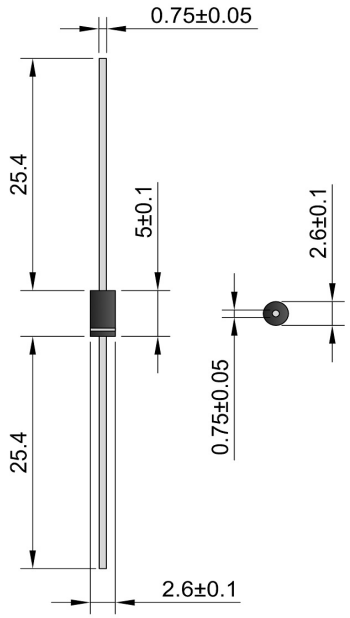
SB120 – SB1100

1.0A SCHOTTKY BARRIER DIODE

Features

- Schottky Barrier Chip
- Guard Ring for Transient and ESD Protection
- Surge Overload Rating to 30A Peak
- Low Power Loss, High Efficiency
- Ideally Suited for Use in High Frequency SMPS, Inverters and As Free Wheeling Diodes

DO-41



Mechanical Data

- Case: DO-41, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.35 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version**

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

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

Characteristic	Symbol	SB120	SB130	SB140	SB150	SB160	SB180	SB1100	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	50	60	80	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	35	42	56	70	V
Average Rectified Output Current (Note 1)	I_O	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30							A
Forward Voltage @I_F = 1.0A	V_{FM}	0.50			0.70		0.85		V
Peak Reverse Current @T_J = 25°C At Rated DC Blocking Voltage @T_J = 100°C	I_{RM}	0.5 10							mA
Typical Junction Capacitance (Note 2)	C_J	110					80		pF
Thermal Resistance, Junction to Ambient (Note 3) Thermal Resistance, Junction to Lead (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	50 15							°C/W
Operating Temperature Range	T_J	-65 to +125			-65 to +150				°C
Storage Temperature Range	T_{STG}	-65 to +150							°C

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
3. Vertical PCB mounting with 12.7mm lead length on 63.5 x 63.5mm copper pad.

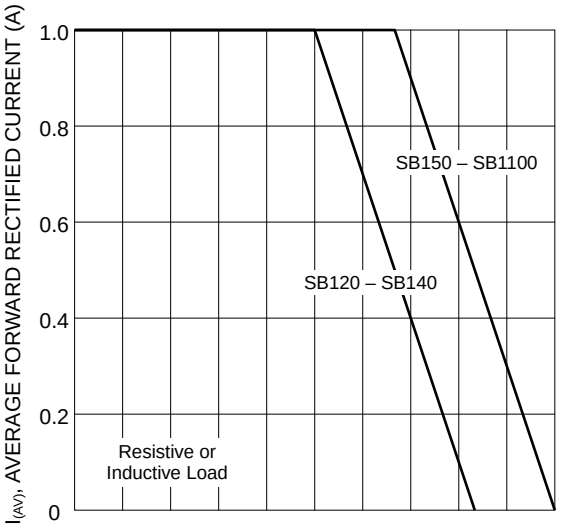


Fig. 1 Forward Current Derating Curve

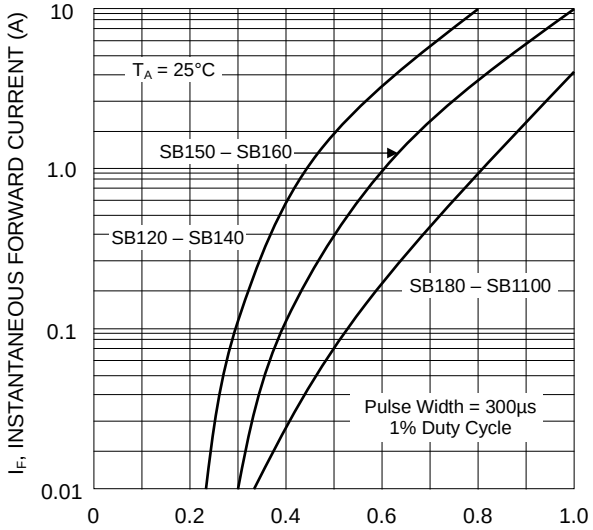


Fig. 2 Typical Forward Characteristics

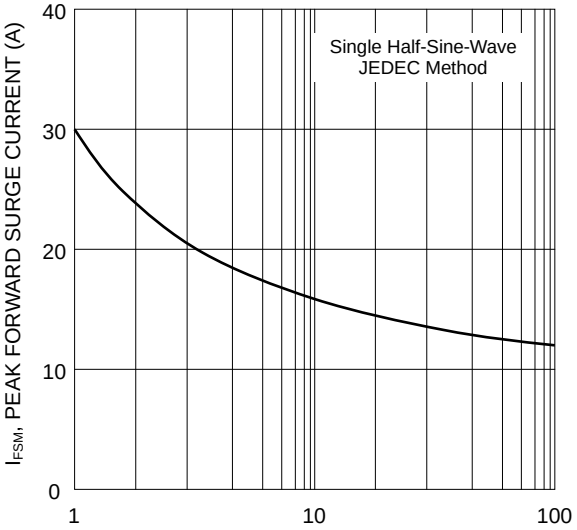


Fig. 3 Forward Surge Current Derating Curve

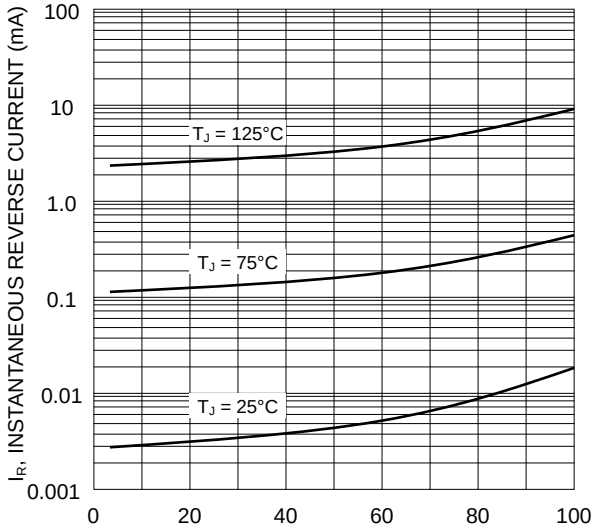


Fig. 4 Typical Reverse Characteristics

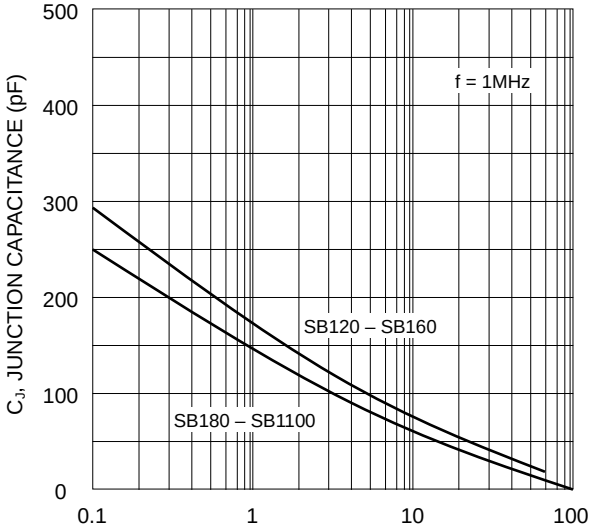
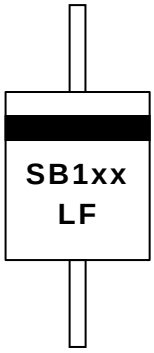


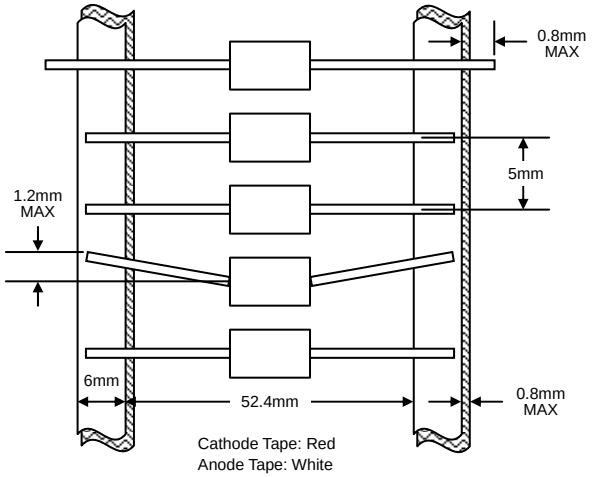
Fig. 5 Typical Junction Capacitance

MARKING INFORMATION



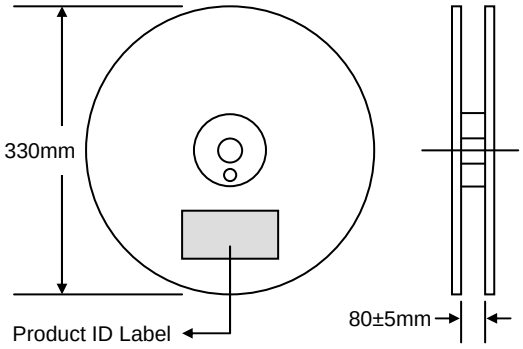
Cathode	= Polarity Band
SB1xx	= Device Number
xx	= 20, 30, 40, 50, 60, 80 or 100

TAPING SPECIFICATIONS

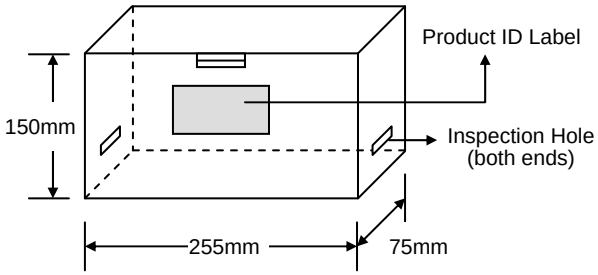


PACKAGING INFORMATION

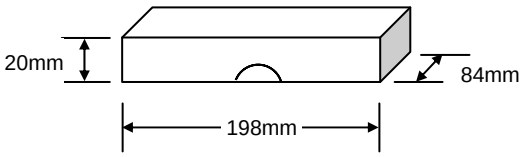
TAPE & REEL



TAPE & BOX



BULK



Packaging	Reel Diameter / Box Size (mm)	Quantity (PCS)	Carton Size (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
TAPE & REEL	330	5,000	370 x 370 x 420	25,000	13.0
TAPE & BOX	255 x 75 x 150	5,000	400 x 273 x 415	50,000	21.0
BULK	198 x 84 x 20	1,000	459 x 214 x 256	50,000	19.5