

SB1020 – SB10100

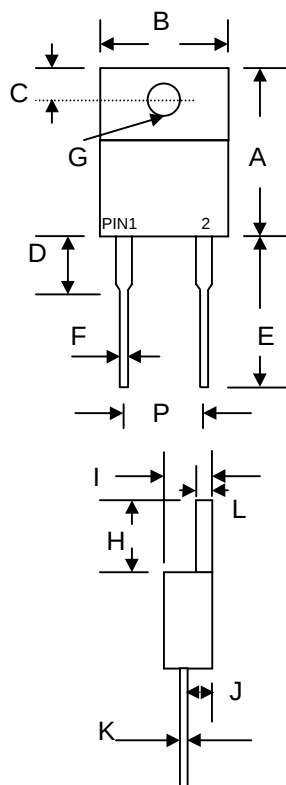
10A SCHOTTKY BARRIER RECTIFIER

Features

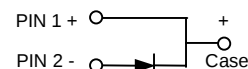
- Schottky Barrier Chip
- Guard Ring for Transient Protection
- High Current Capability, Low Forward
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

Mechanical Data

- Case: TO-220A Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 2.24 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



TO-220A		
Dim	Min	Max
A	14.9	15.1
B	—	10.5
C	2.62	2.87
D	3.56	4.06
E	13.46	14.22
F	0.68	0.94
G	3.74 Ø	3.91 Ø
H	5.84	6.86
I	4.44	4.70
J	2.54	2.79
K	0.35	0.64
L	1.14	1.40
P	4.95	5.20
All Dimensions in mm		



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	SB 1020	SB 1030	SB 1040	SB 1050	SB 1060	SB 1080	SB 10100	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 @T _C = 95°C	I _O	10							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	150							A
Forward Voltage @I _F = 10A	V _{FM}	0.55			0.75		0.85		V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C	I _{RM}	0.5 50							mA
Typical Junction Capacitance (Note 1)	C _j	700							pF
Typical Thermal Resistance Junction to Case (Note 2)	R _{θJC}	3.5							K/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150							°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
 2. Thermal resistance junction to case mounted on heatsink.

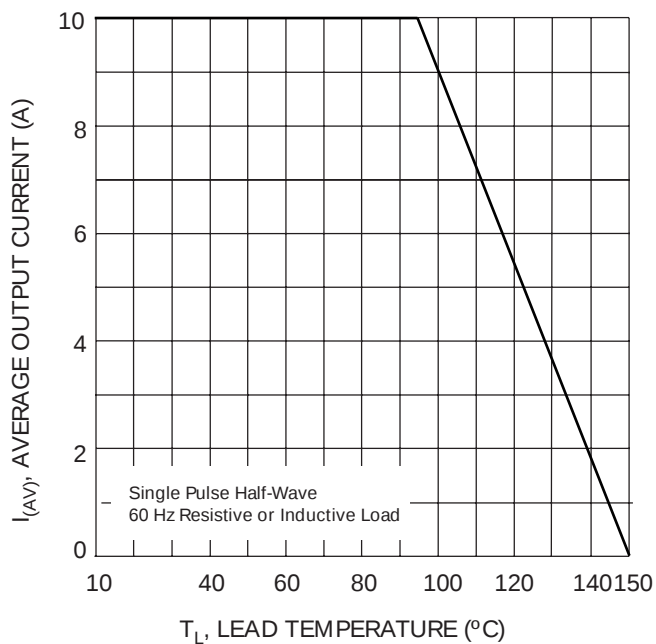


Fig. 1 Forward Current Derating Curve

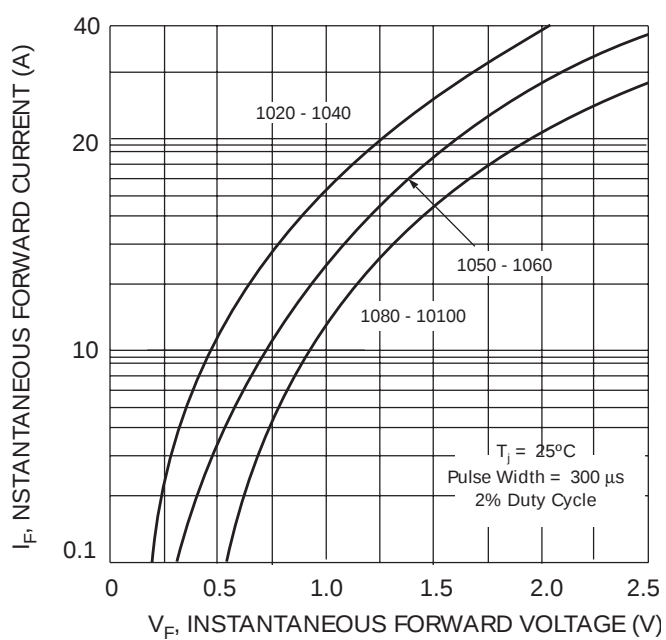


Fig. 2 Typical Forward Characteristics

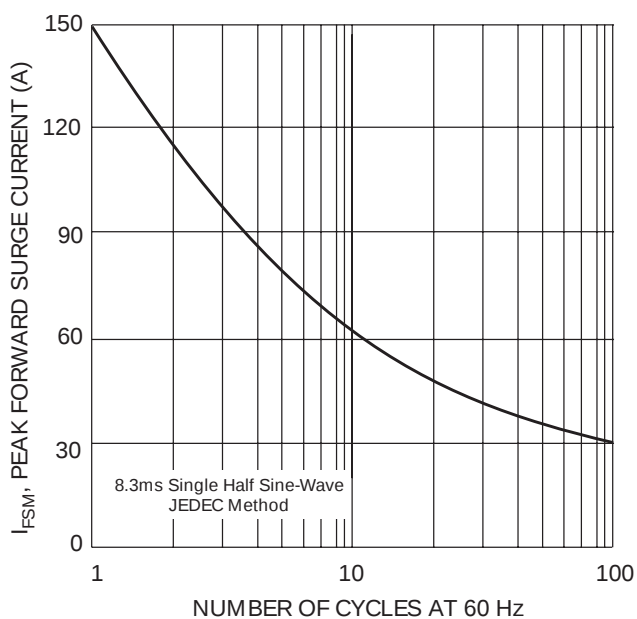


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

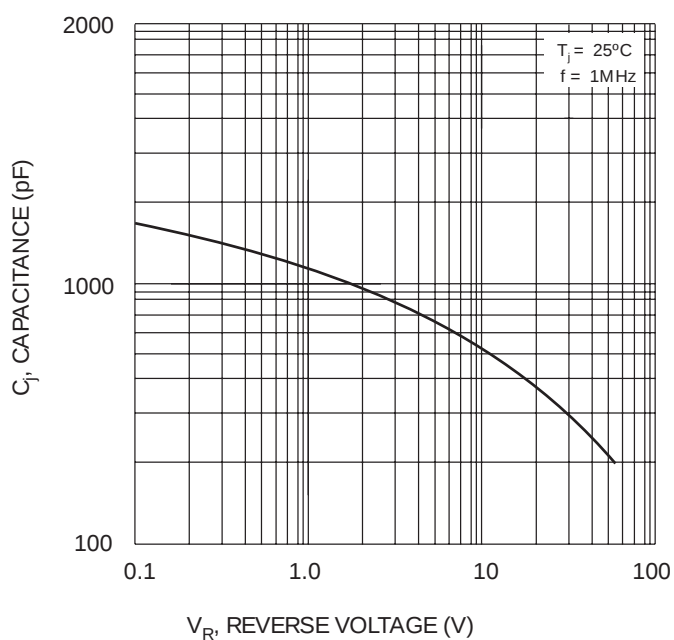


Fig. 4 Typical Junction Capacitance

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
SB1020	TO-220A	50 Units/Tube
SB1030	TO-220A	50 Units/Tube
SB1040	TO-220A	50 Units/Tube
SB1050	TO-220A	50 Units/Tube
SB1060	TO-220A	50 Units/Tube
SB1080	TO-220A	50 Units/Tube
SB10100	TO-220A	50 Units/Tube

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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