SB220 THRU SB2100

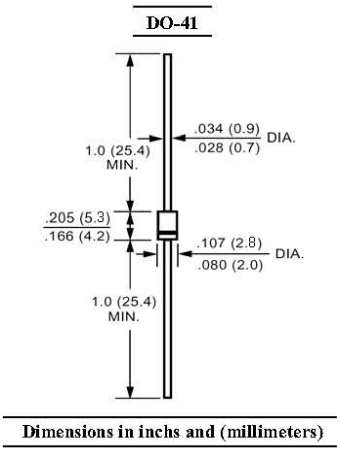
Schottky Barrier Rectifier

Reverse Voltage - 20 to 100 V

Forward Current - 2 A

Features

- High current capability
- High surge current capability
- Low forward voltage drop
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications



Mechanical Data

- Case: Molded plastic, DO-41
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208
- Polarity: Color band denotes cathode end
- Mounting Position: Any

Absolute Maximum Ratings and Characteristics

Ratings at 25 ºC ambient temperature unless otherwise specified. Single phase, half wave, resistive or inductive load. For capacitive load, derate by 20%.

Parameter	Symbols	SB220	SB230	SB240	SB250	SB260	SB280	SB2100	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length	$I_{F(AV)}$	2							A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50							A
Maximum Forward Voltage at 2 A	V_F	0.55			0.7		0.85		V
Maximum Reverse Current T_A = 25 °C	I_R	0.5							mA
at Rated DC Blocking Voltage T_A = 100 °C		20							
Typical Junction Capacitance [1]	C_J	170							pF
Typical Thermal Resistance [2]	$R_{\theta JA}$	35							°C/W
Operating and Storage Temperature Range	T_j , T_{stg}	- 50 to + 125							°C

[1] Measured at 1 MHz and applied reverse voltage of 4 VDC

[2] Thermal resistance junction to ambient and from junction to lead at 0.375" (9.5 mm) lead length. P.C.B mounted

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

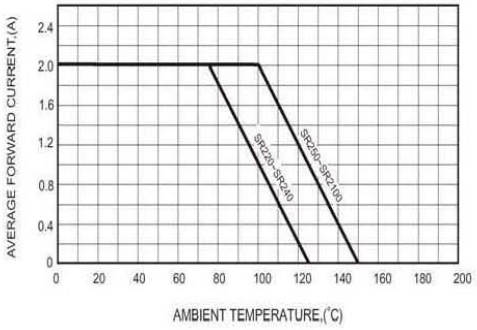


FIG.2-TYPICAL FORWARD CHARACTERISTICS

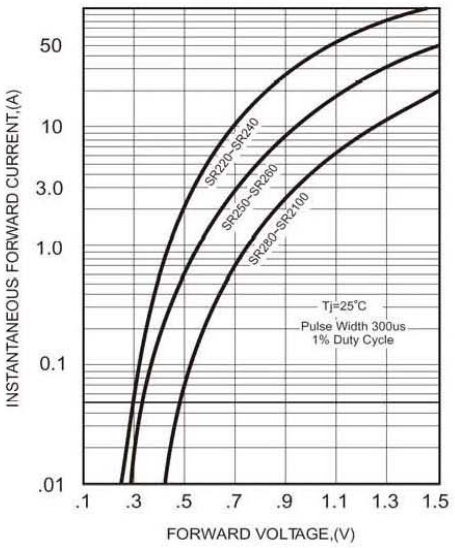


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

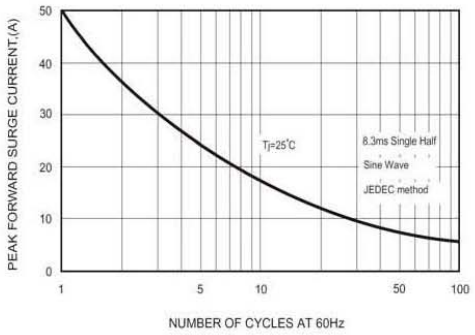


FIG.4-TYPICAL JUNCTION CAPACITANCE

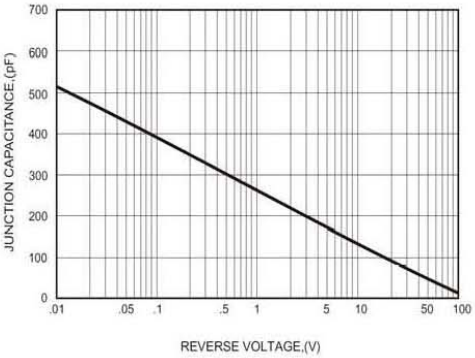


FIG.5 - TYPICAL REVERSE CHARACTERISTICS