

SB2020 thru SB20100

Schottky Barrier Rectifiers

Reverse Voltage 35 to 100V Forward Current 20A

Feature & Dimensions

- * Plastic package has underwriters laboratory Flammability classification 94V-0
- * Low power loss, high efficiency
- * For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- * Guarding for over voltage protection
- * High temperature soldering guaranteed: 260°C/10 seconds at terminals

Mechanical Data

Case : JEDEC R-6, molded plastic over sky die

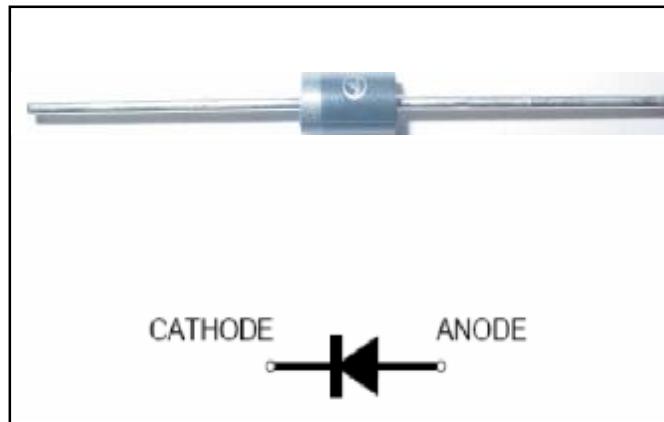
Terminals : Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity : Color band denotes cathode end

Weight : 0.042oz., 1.19 g

Mounting position : Any

Handling precaution : None



We declare that the material of product compliance with ROHS requirements

1. Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter symbol	Symbol	SB2035	SB2045	SB2050	SB2060	SB2080	SB20100	Unit
Device marking code		SB2035	SB2045	SB2050	SB2060	SB2080	SB20100	
Maximum repetitive peak reverse voltage	V _{RRM}	35	45	50	60	80	100	V
Maximum RMS voltage	V _{RMS}	35	45	50	60	80	100	V
Maximum DC blocking voltage	V _{DC}	35	45	50	60	80	100	V
Maximum average forward rectified current 0.375" (9.5mm) lead length (See fig. 1)	I _{F(AV)}	20.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM1}	230						A
Thermal resistance, junction to ambient	R _{θJA}	40						°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-40 to +150						°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter symbol	Symbol	SB2035	SB2045	SB2050	SB2060	SB2080	SB20100	Unit
Maximum instantaneous forward voltage at 20.0A	V _F	0.55	0.60	0.70	0.90			V
Maximum DC reverse current TC = 25°C	I _r	200						uA
Maximum DC reverse current TC = 100°C	I _r	1000						uA
Typical junction capacitance at 4.0V, 1MHz	C _J	500		380		PF		

Notes:

1. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

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2. Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

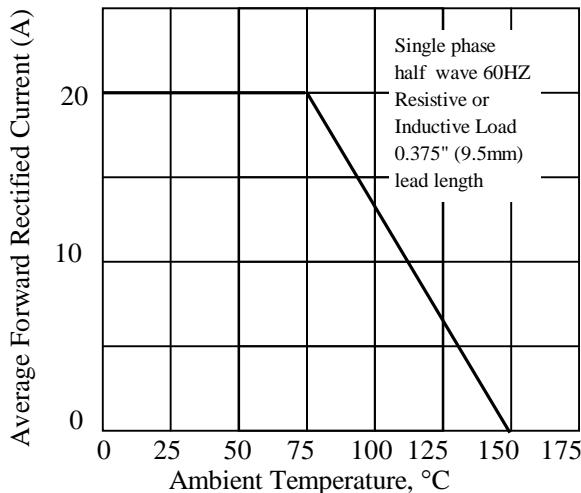


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

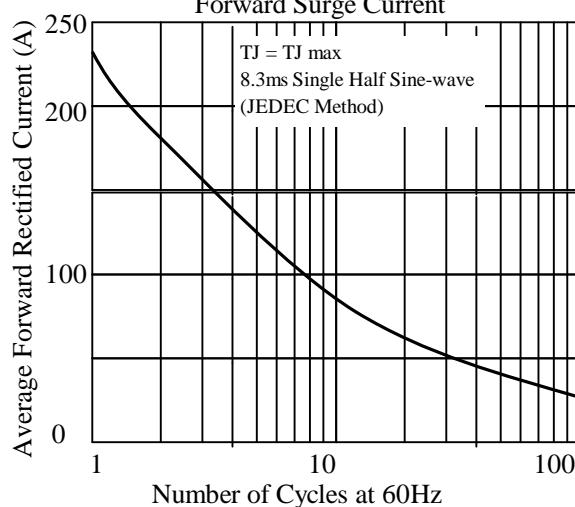


Fig. 3. - Typical Instantaneous Forward Characteristics

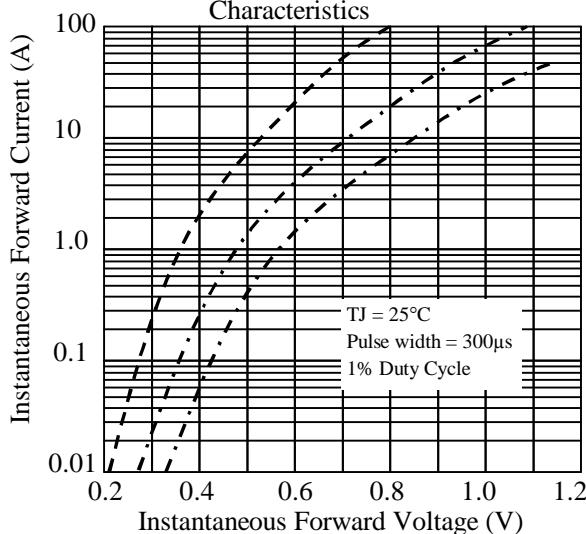


Fig. 5. - typical transient thermal impedance

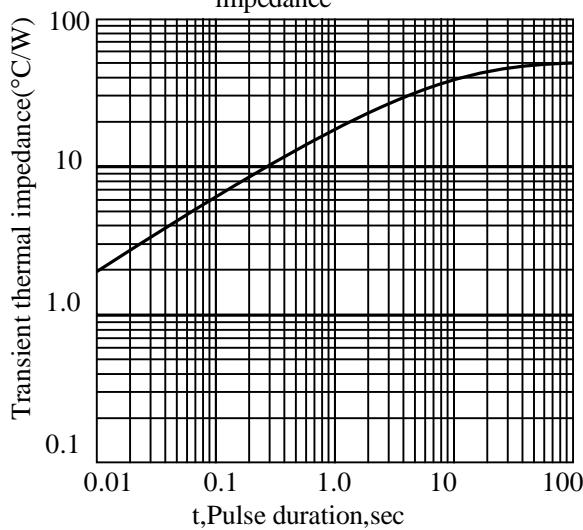


Fig 4. - Typical Reverse Characteristics

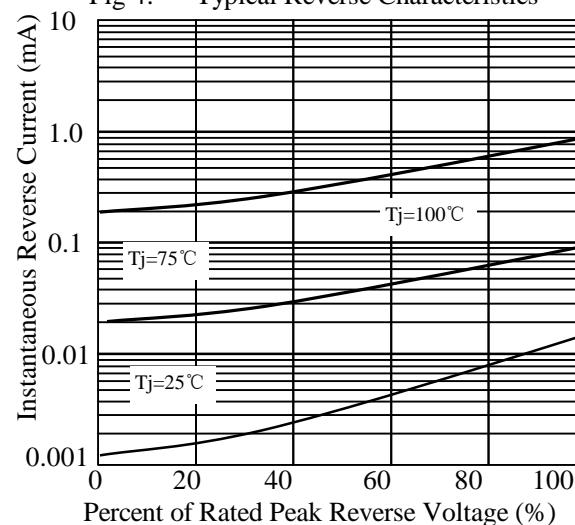
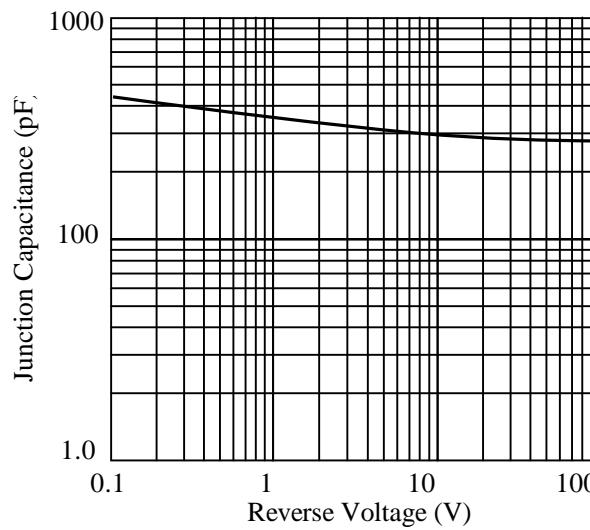


Fig. 6. - Typical Junction Capacitance



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3. dimension:

Package outline					
				Dimensions	
	inches		mm		
L	Min.	Max.	Min.	Max.	
L1	0.335	0.375	8.5	9.5	
ΦD	1.0	-	25.4	-	
Φd	0.335	0.375	8.5	9.5	
Φd	0.048	0.052	1.2	1.3	

Note:
R-6
molded plastic case
The marking band indicates the cathode



LESHAN RADIO COMPANY, LTD.

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4. Update Record

版次	更新记录	更新作者	更新日期
1	第一版	周杰	2010-7-30