

SB2020 thru SB20100

Schottky Barrier Rectifiers

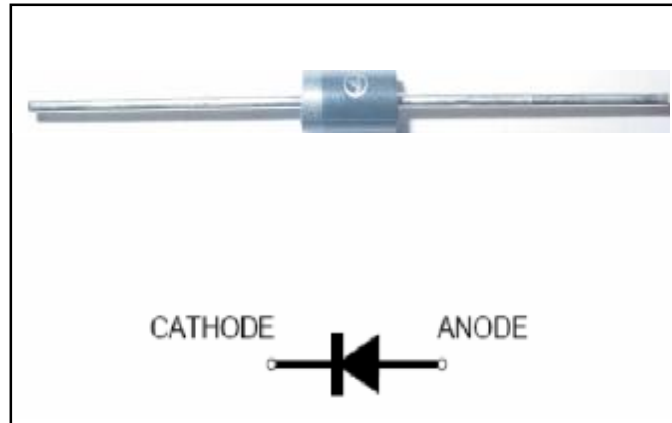
Reverse Voltage 35 to 100V Forward Current 20A

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)	IF(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 θ JA	40						°C/W
Operating junction and storage temperature range	TJ, TSTG	-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	VF	0.55		0.60	0.70	0.90		V
Maximum DC reverse current TC = 25°C	Ir	200						uA
Maximum DC reverse current TC = 100°C	Ir	1000						uA
Typical junction capacitance at 4.0V, 1MHz	CJ	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

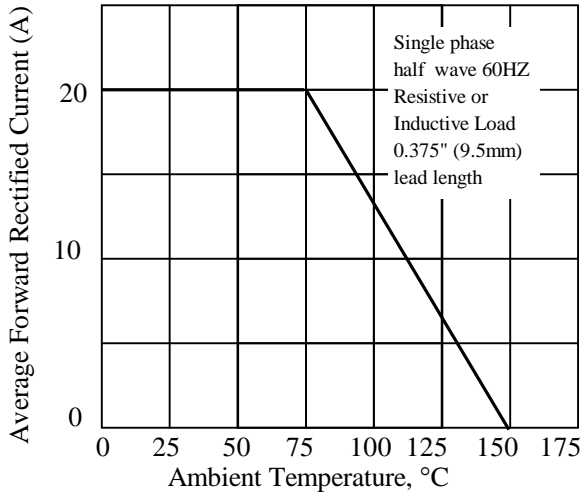


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

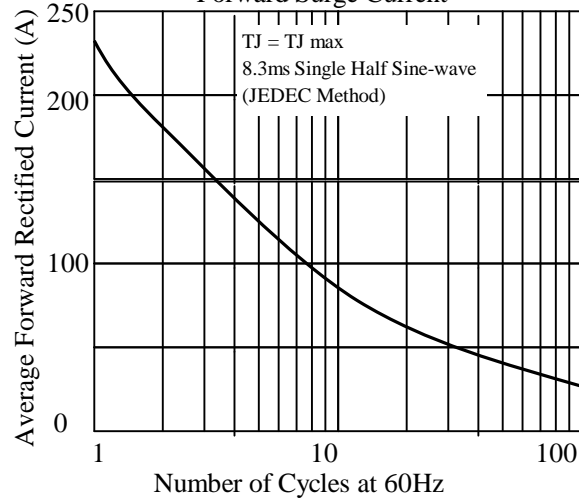


Fig 3. - Typical Instantaneous Forward Characteristics

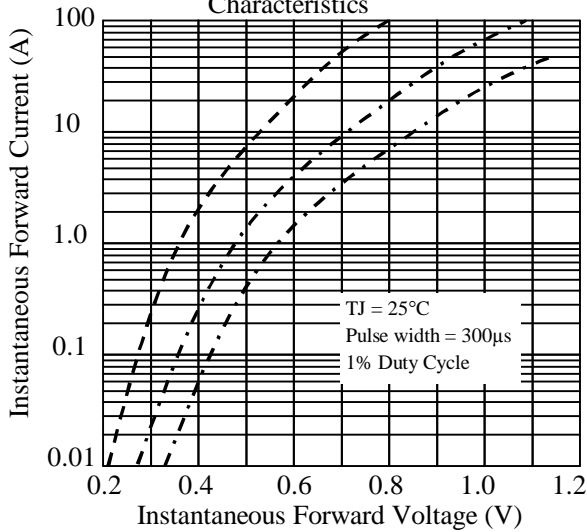


Fig 4. - Typical Reverse Characteristics

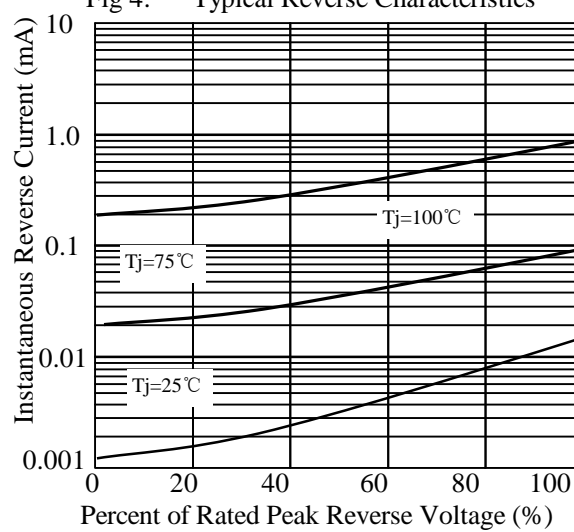


Fig 5. - typical transient thermal impedance

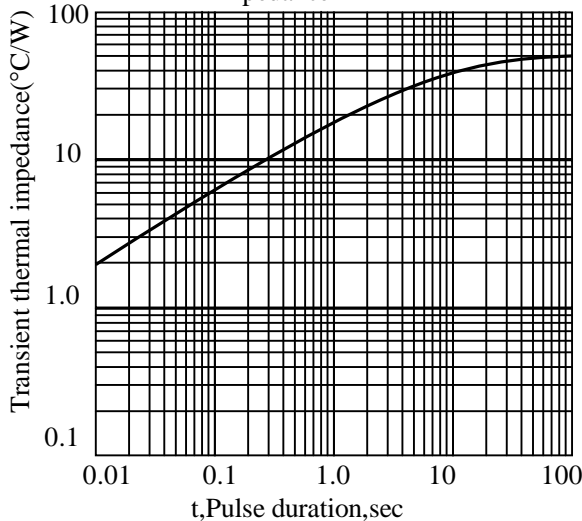
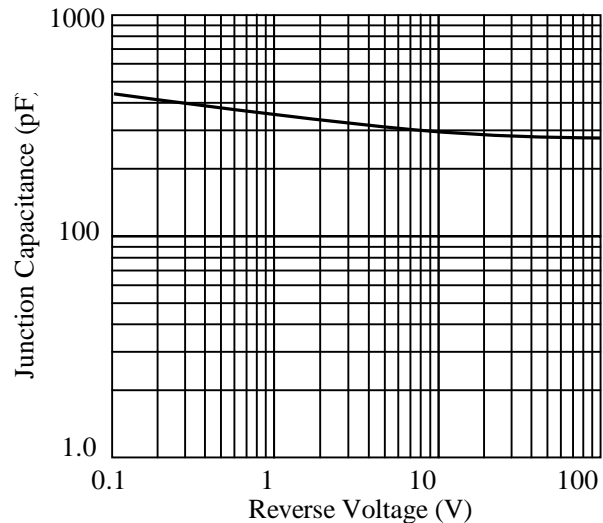
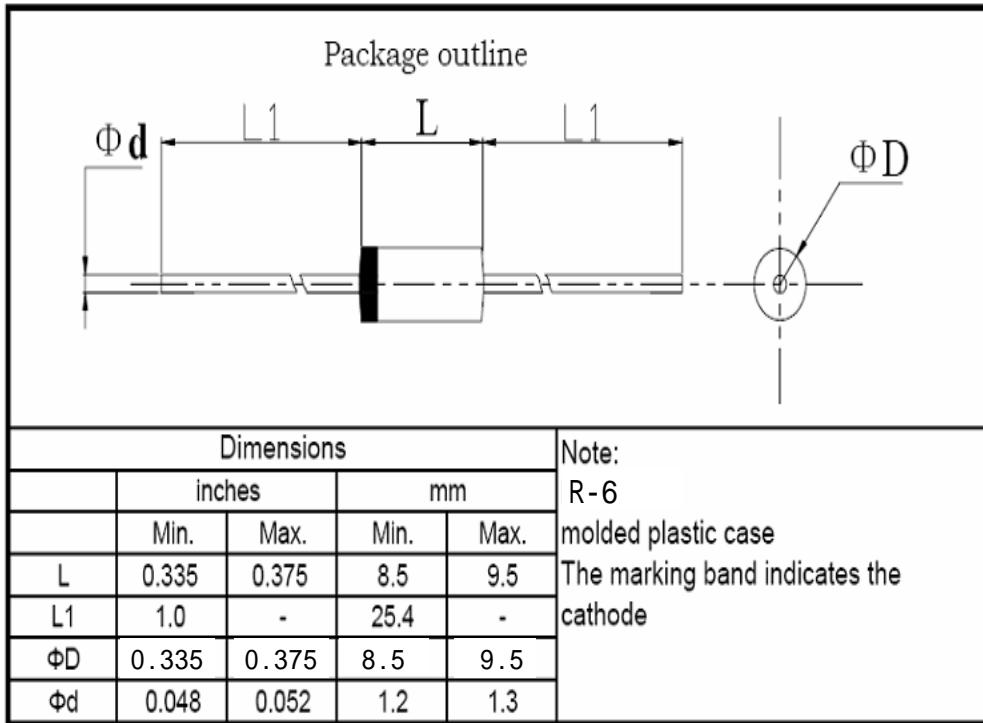


Fig 6. - Typical Junction Capacitance



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3. dimension:





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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