

# SB1020 thru SB10100

## Schottky Barrier Rectifiers

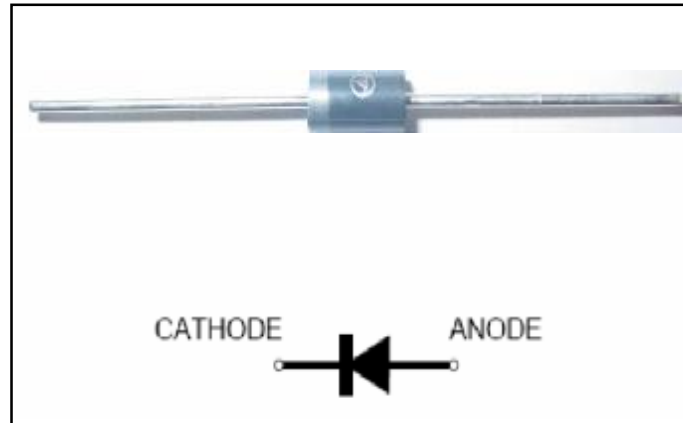
Reverse Voltage 35 to 100V Forward Current 10A

### 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	SB1035	SB1045	SB1050	SB1060	SB1080	SB10100	Unit
Device marking code		SB1035	SB1045	SB1050	SB1060	SB1080	SB10100	
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)	10.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM1}$	175						A
Thermal resistance, junction to ambient	$R_{\theta JA}$	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	SB1035	SB1045	SB1050	SB1060	SB1080	SB10100	Unit
Maximum instantaneous forward voltage at 10.0A	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

# SB1020 thru SB10100

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

Fig. 1 - Forward Current Derating Curve

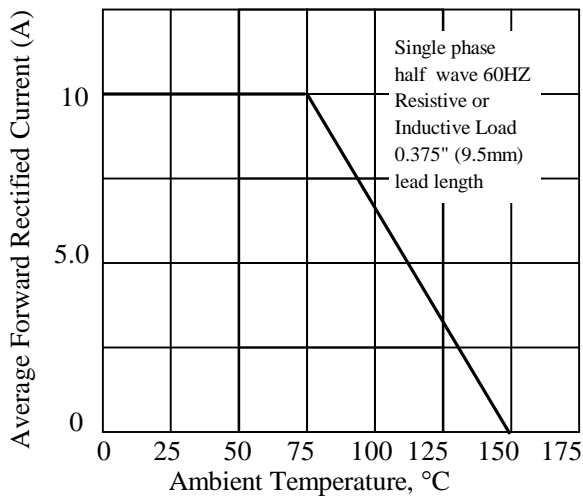


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

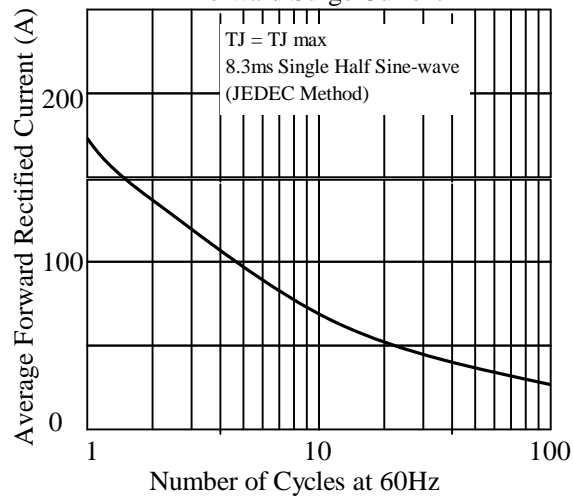


Fig 3. - Typical Instantaneous Forward Characteristics

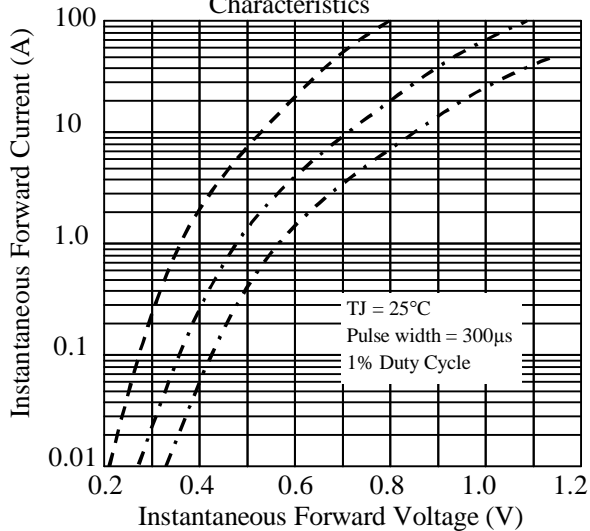


Fig 4. - Typical Reverse Characteristics

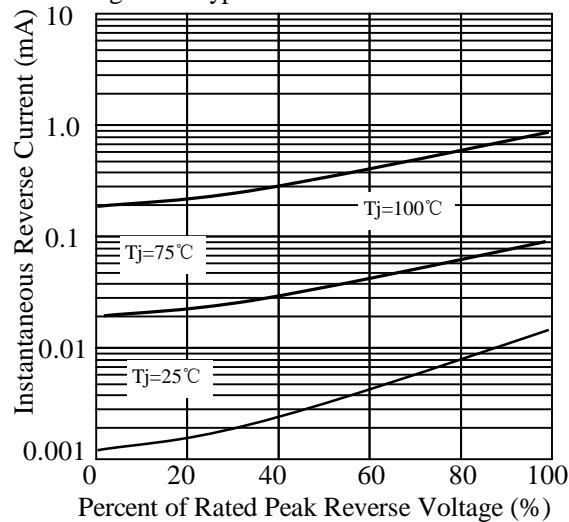


Fig 5. - typical transient thermal impedance

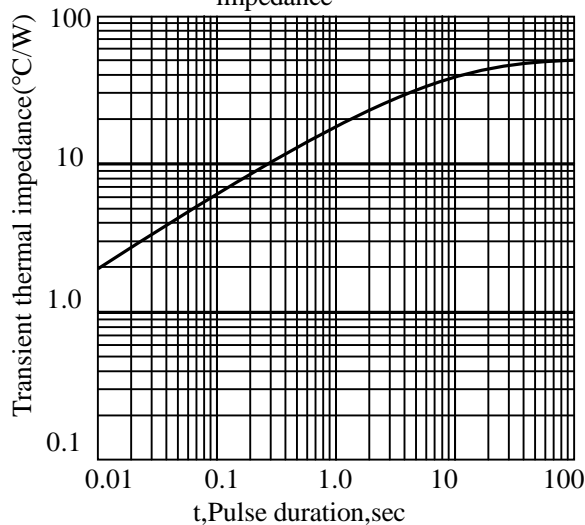
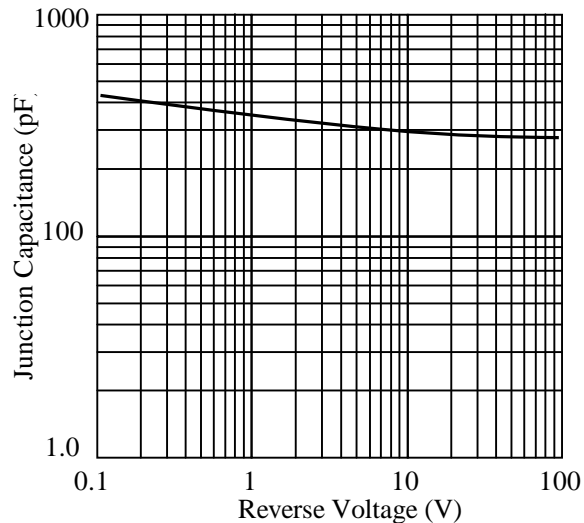
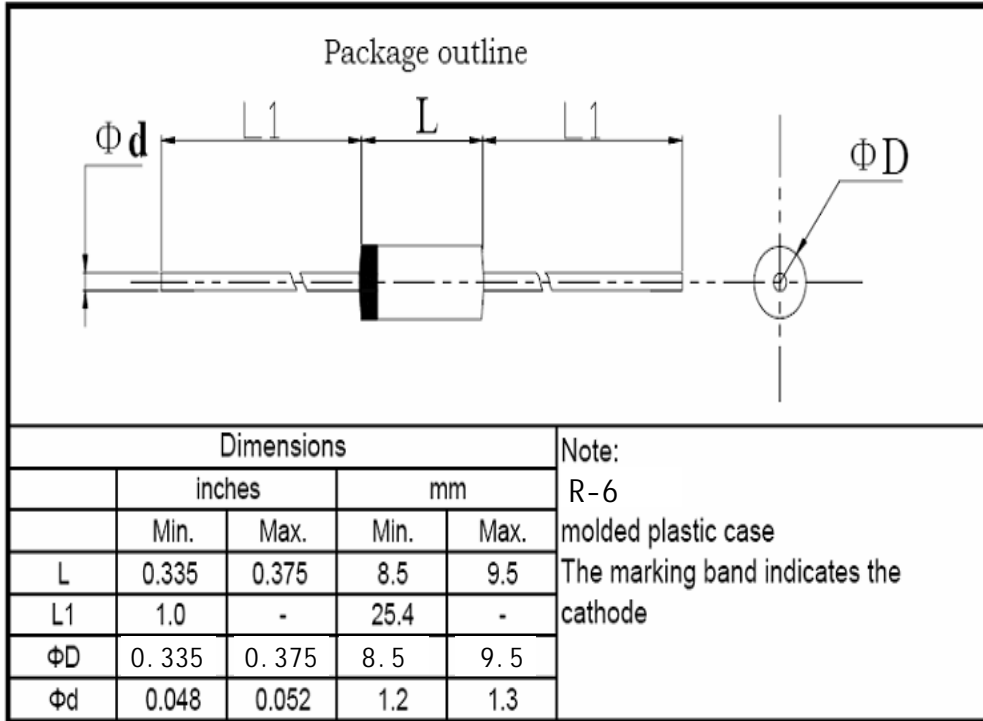


Fig 6. - Typical Junction Capacitance



## SB1020 thru SB10100

### 3. dimension:





## **SB1020 thru SB10100**

### **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

单击下面可查看定价，库存，交付和生命周期等信息

[>>LRC\(乐山无线电\)](#)