

SB120 thru SB1100

Schottky Barrier Rectifiers
Reverse Voltage 20 to 100V Forward Current 1.0A

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 DO-41, molded plastic over glass body

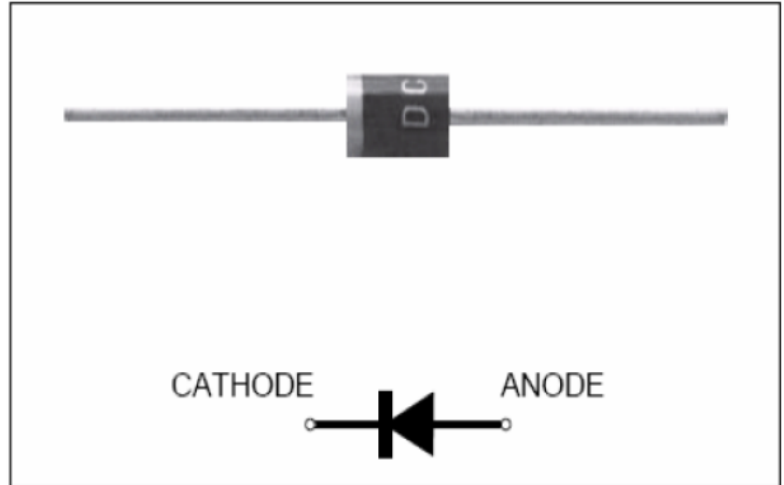
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.011 oz., 0.284 g

Handling precaution: None



We declare that the material of product compliance with ROHS requirements

1. Electrical Characteristic

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

| Parameter Symbol | symbol | SB 120 | SB 130 | SB 140 | SB 150 | SB 160 | SB 180 | SB 190 | SB 1100 | Unit |
|--|-----------------|-------------|--------|--------|--------|--------|--------|--------|---------|------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | V |
| Maximum RMS voltage | V_{RMS} | 14 | 21 | 28 | 35 | 42 | 56 | 63 | 70 | V |
| Maximum DC blocking voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | V |
| Maximum average forward rectified current 0.375" (9.5mm) lead length (See fig. 1) | $I_F(AV)$ | 1.0 | | | | | | | | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 30 | | | | | | | | A |
| Typical thermal resistance (Note 1) | $R_{\theta JA}$ | 35 | | | | | | | | °C/W |
| Operating junction and storage temperature range | TJ, TSTG | -40 to +125 | | | | | | | | °C |

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

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|--|--------|--------|--------|--------|--------|--------|--------|--------|---------|------|----|
| Maximum instantaneous forward voltage at 1.0A | V_F | 0.50 | | | 0.70 | | 0.84 | | | V | |
| Maximum DC reverse current $T_A = 25^\circ C$ at rated DC blocking voltage $T_A = 100^\circ C$ | I_R | 0.5 | | | | 10 | | | | | mA |
| Typical junction capacitance at 4.0V, 1MHz | C_J | 110 | | | | | | | | 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

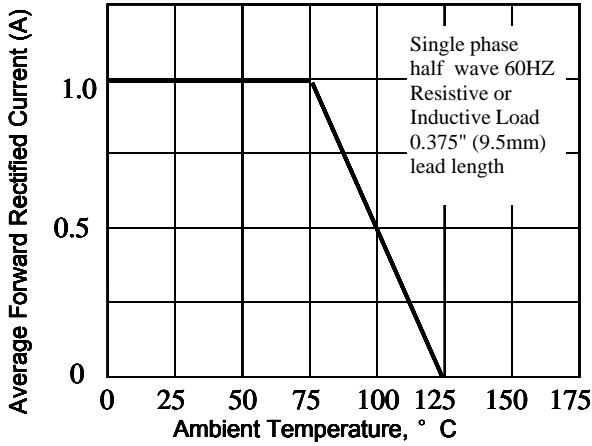


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

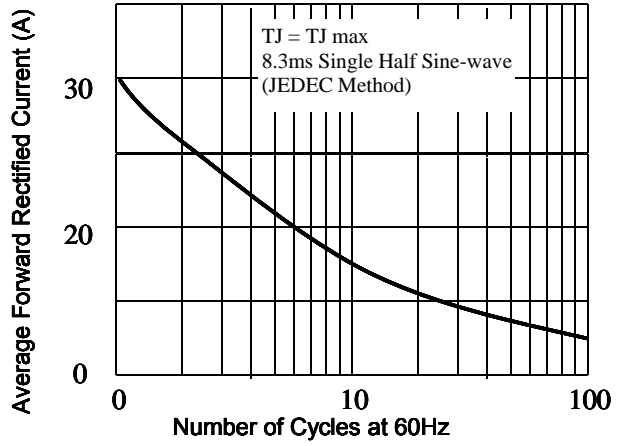


Fig 3. – Typical Instantaneous Forward Characteristics

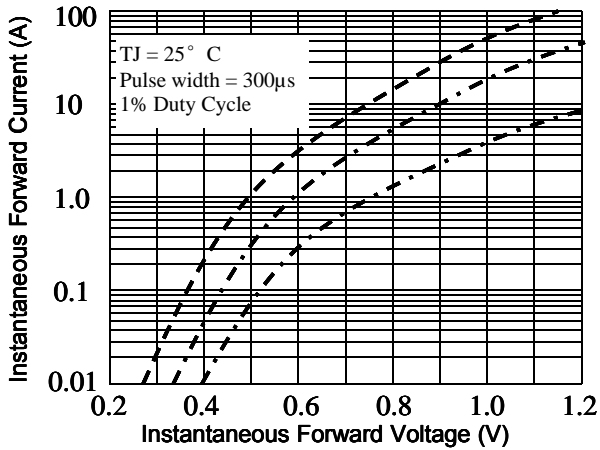


Fig 4. – Typical Reverse Characteristics

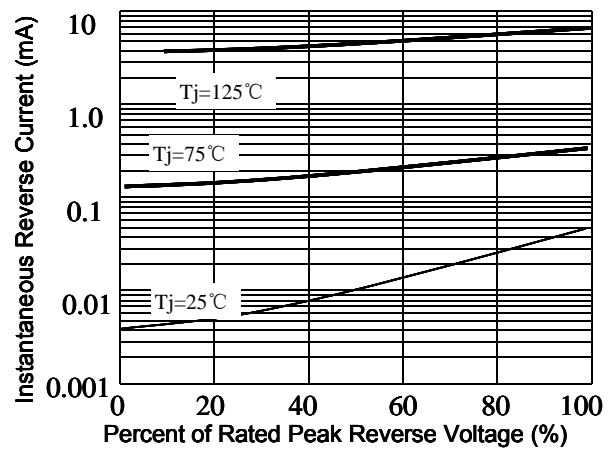


Fig 5. –typical transient thermal impedance

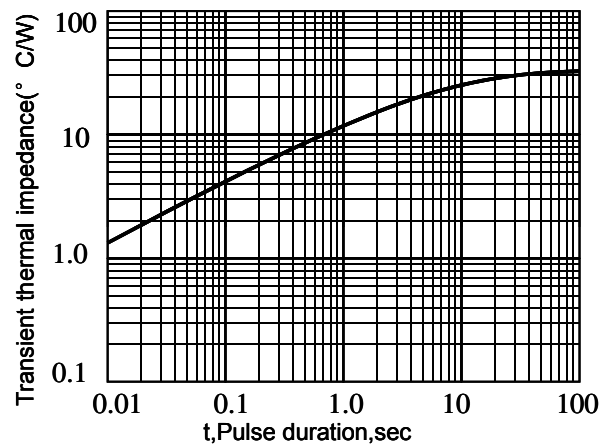
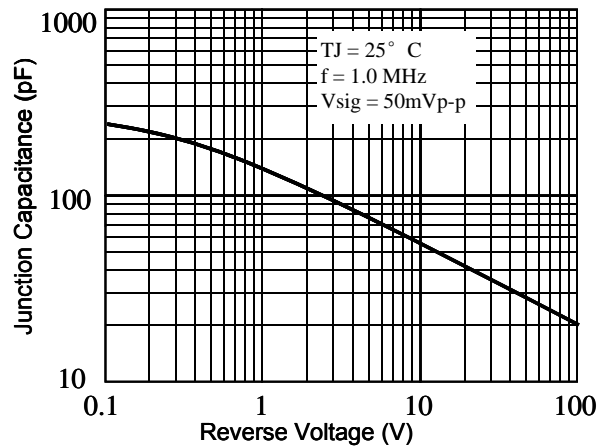
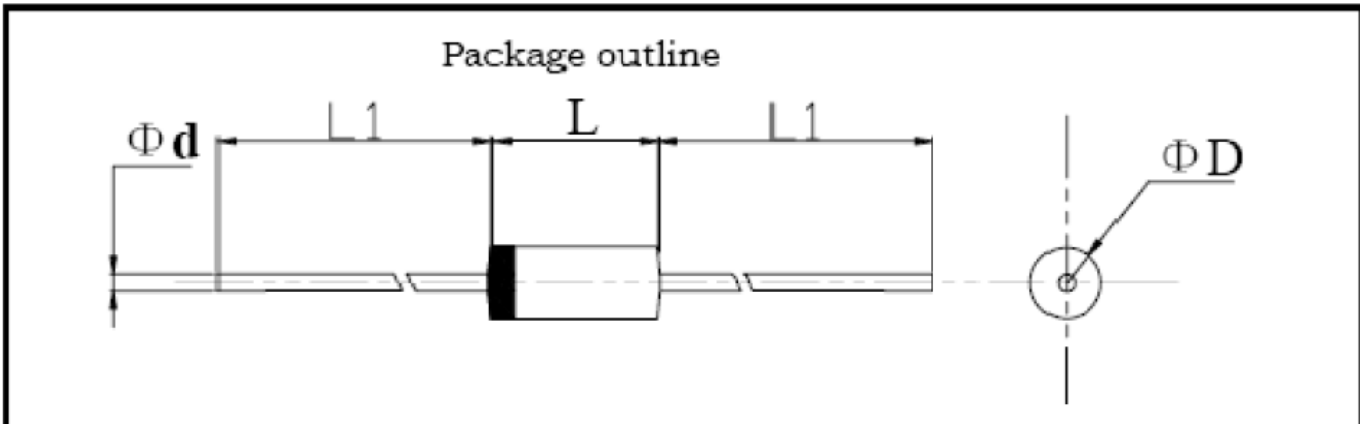


Fig 6. – Typical Junction Capacitance



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3. dimension:



| Dimensions | | | | | Note: DO-41 molded plastic case The marking band indicates the cathode |
|------------|--------|-------|------|------|--|
| | inches | | mm | | |
| | Min. | Max. | Min. | Max. | |
| L | 0.166 | 0.205 | 4.2 | 5.2 | |
| L1 | 0.866 | - | 22 | - | |
| ΦD | 0.080 | 0.107 | 2.0 | 2.7 | |
| Φd | 0.028 | 0.034 | 0.7 | 0.9 | |

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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 | 余波 | 2010-5-27 |
| | | | |
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单击下面可查看定价，库存，交付和生命周期等信息

[>>LRC\(乐山无线电\)](#)