

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

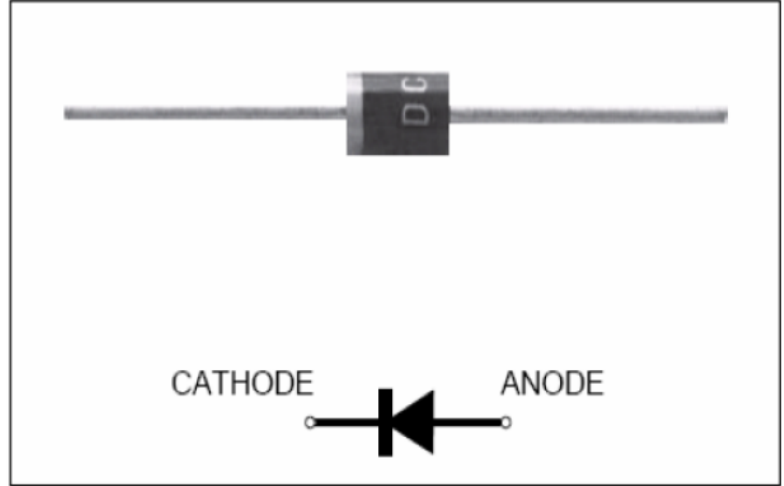
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

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.

Parameter Symbol	symbol	SB 120	SB 130	SB 140	SB 150	SB 160	SB 180	SB 190	SB 1100	Unit	
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

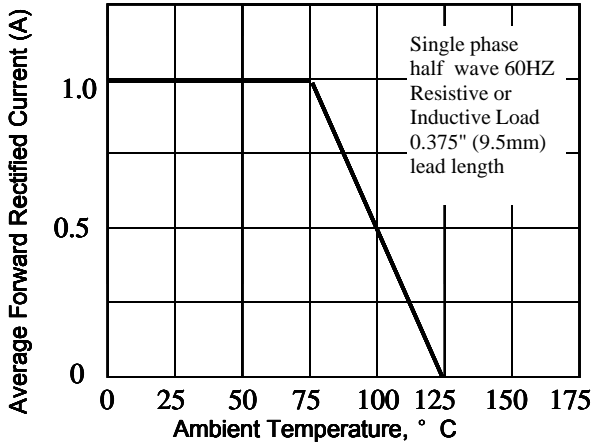


Fig 3. – Typical Instantaneous Forward Characteristics

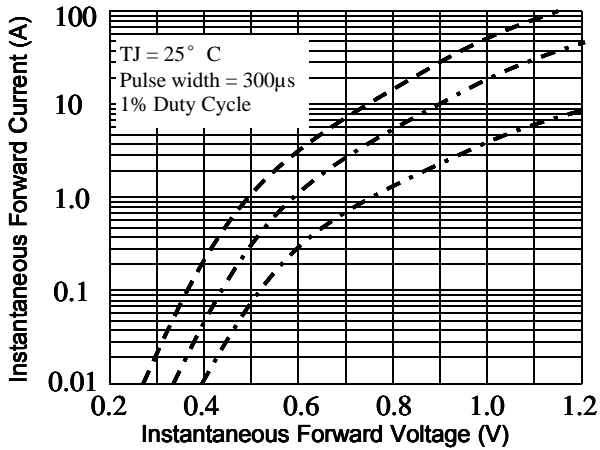


Fig 5. –typical transient thermal impedance

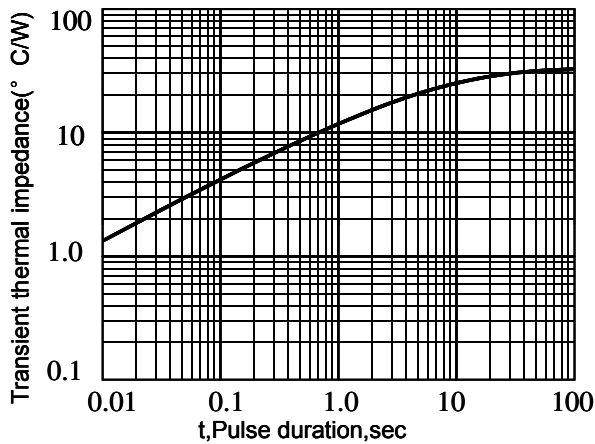


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

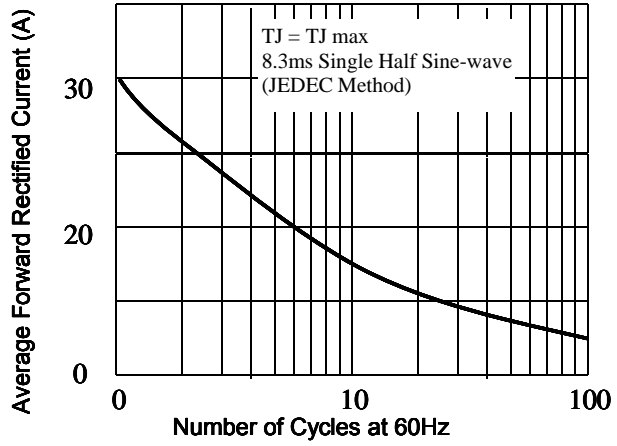


Fig 4. – Typical Reverse Characteristics

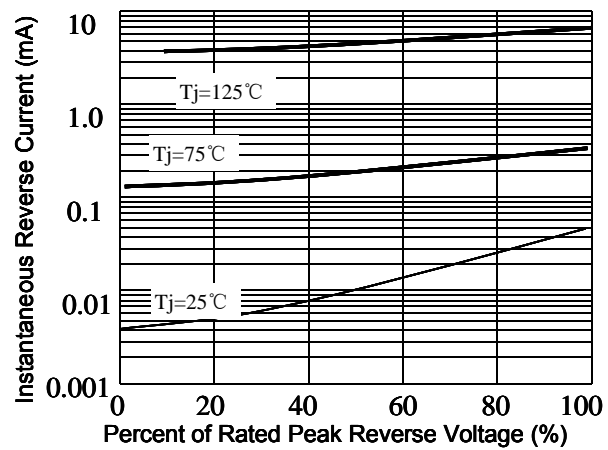
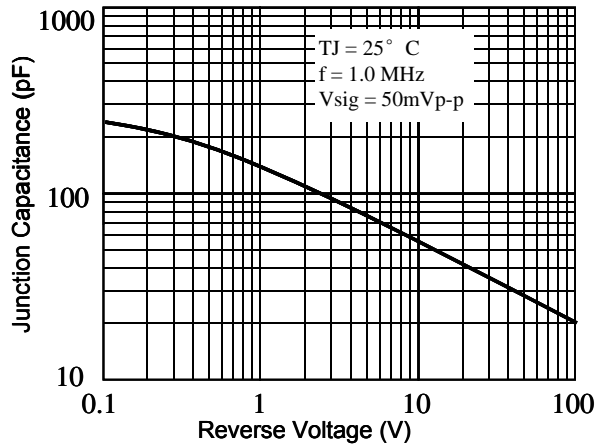
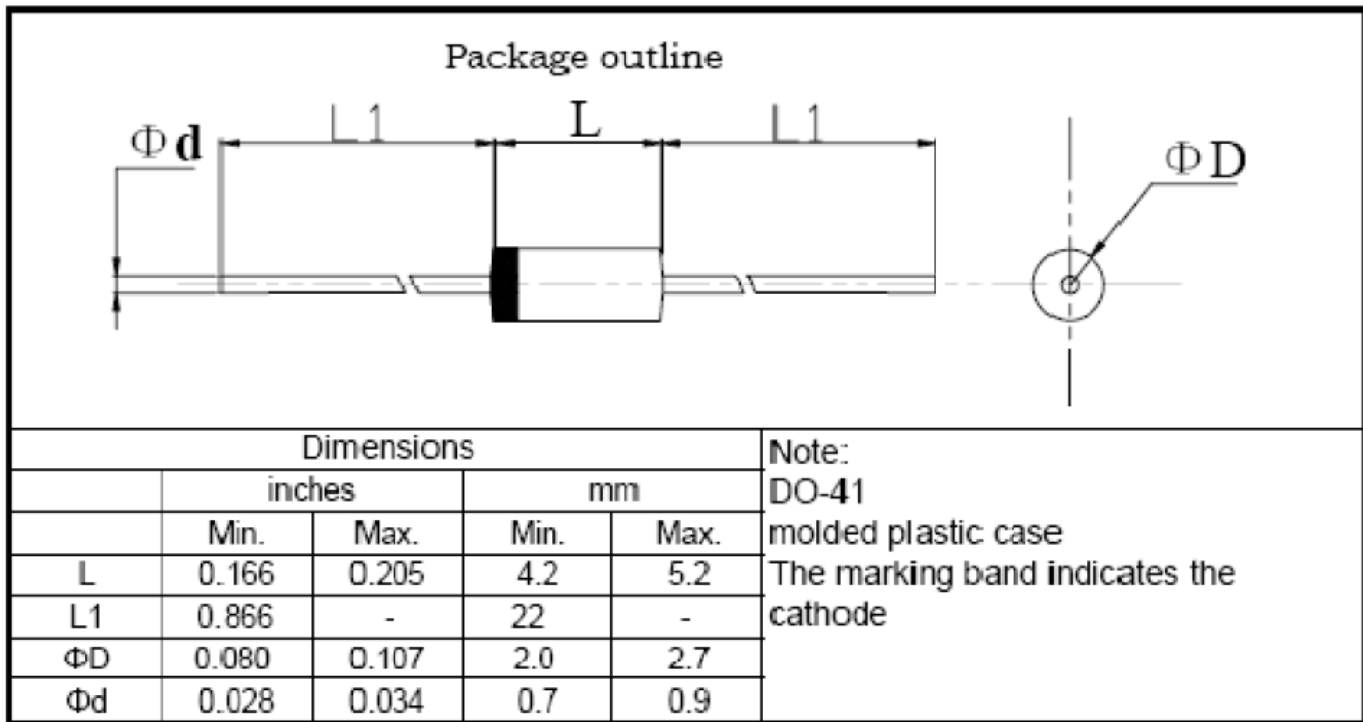


Fig 6. – Typical Junction Capacitance



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3. dimension:



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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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