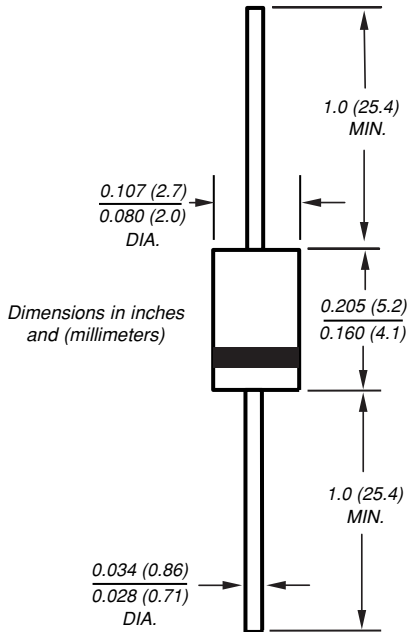
**Schottky Barrier Rectifier****Reverse Voltage** 20 to 60V
Forward Current 1.0A**DO-204AL (DO-41)**

Dimensions in inches and (millimeters)

Features

- 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
- Guardring for overvoltage protection

Mechanical Data**Case:** JEDEC DO-204AL molded plastic body**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026High temperature soldering guaranteed:
250°C/10 seconds 0.375" (9.5mm) lead length,
5lbs. (2.3kg) tension**Polarity:** Color band denotes cathode end**Mounting Position:** Any**Weight:** 0.012 ounce, 0.34 gram**Maximum Ratings and Thermal Characteristics** ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	SB120	SB130	SB140	SB150	SB160	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	V
Maximum average forward rectified current at 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}	50					A
Typical thermal resistance ⁽¹⁾	$R_{\theta JA}$ $R_{\theta JL}$	50 15					$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J	-65 to +125			-65 to +150		$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to +150					$^\circ\text{C}$

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Maximum instantaneous forward voltage at 1.0A ⁽²⁾	V_F	0.48		0.65		V	
Maximum instantaneous reverse current at rated DC blocking voltage ⁽²⁾	I_R	0.5					mA
		10		5.0			

Notes: (1) Thermal resistance junction to lead P.C.B. mounted 0.375" (9.5mm) lead length(2) Pulse test: 300 μs pulse width, 1% duty cycle

SB120 thru SB160



Vishay Semiconductors
formerly General Semiconductor

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

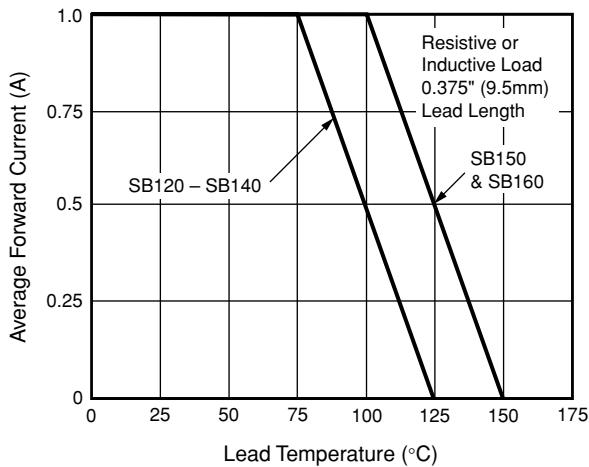


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

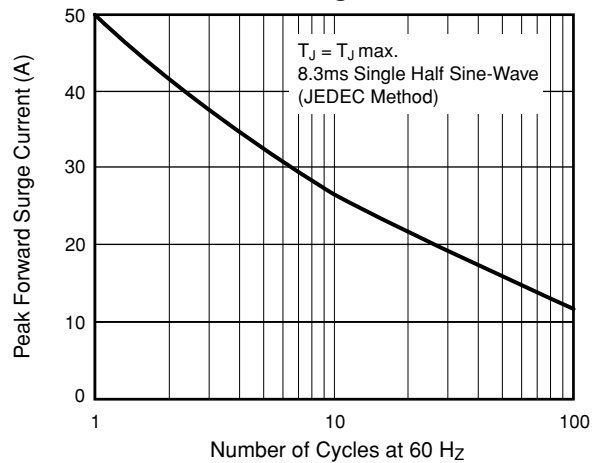


Fig. 3 - Typical Instantaneous Forward Characteristics

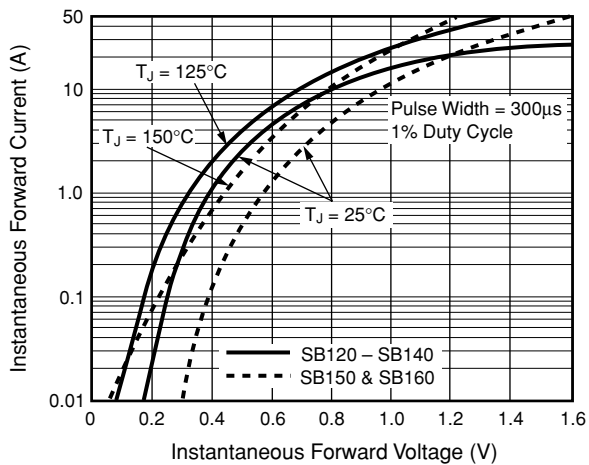


Fig. 4 - Typical Reverse Characteristics

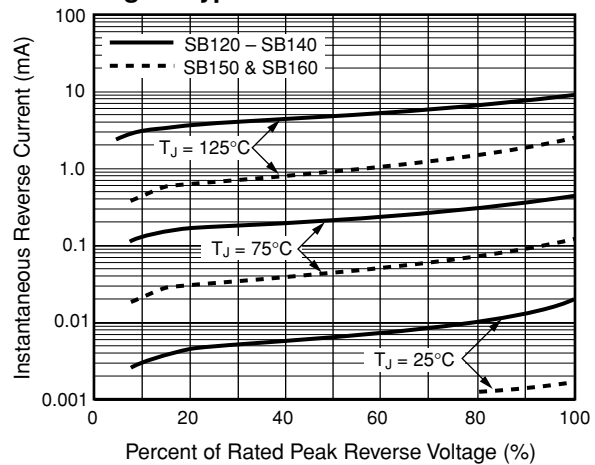


Fig. 5 - Typical Junction Capacitance

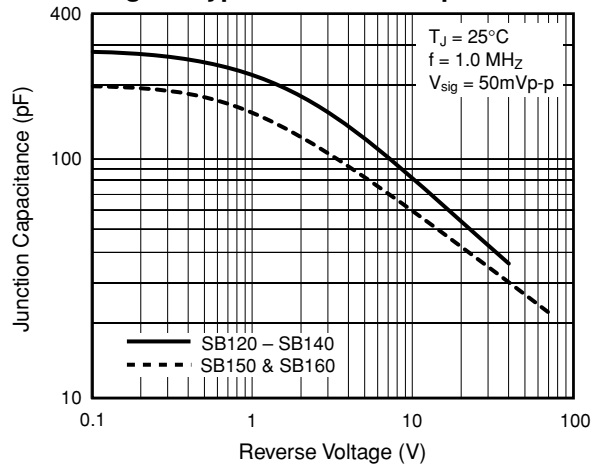


Fig. 6 - Typical Transient Thermal Impedance

