



New Product

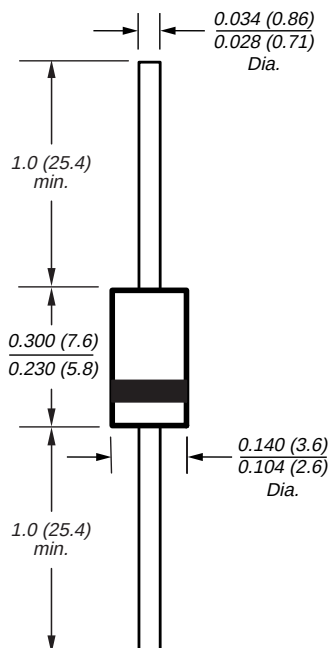
SB320S thru SB360S

Vishay Semiconductors
formerly General Semiconductor

Schottky Barrier Rectifier

Reverse Voltage 20 to 60V
Forward Current 3.0A

DO-204AC (DO-15)



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
- 3 Amp Schottky rectifier in smaller DO-204AC (DO-15) package

Mechanical Data

Case: JEDEC DO-204AC molded plastic body

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

High 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: 0.04oz., 1.12g

Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	SB320S	SB330S	SB340S	SB350S	SB360S	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)}	3.0					A
Peak forward surge current 8.3μs single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	100					A
Typical thermal resistance ⁽²⁾	R _{θJA} R _{θJL}	40 12					°C/W
Operating junction temperature range	T _J	−65 to +125			−65 to +150		°C
Storage temperature range	T _{STG}	−65 to +150					°C

Electrical Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	SB320S	SB330S	SB340S	SB350S	SB360S	Unit
Maximum instantaneous forward voltage at 3.0A ⁽¹⁾	V _F	0.50			0.74		V
Maximum instantaneous reverse current at rated DC blocking voltage ⁽¹⁾ T _A = 25°C T _A = 100°C	I _R	0.5					mA
		20			10		

Notes: (1) Pulse test: 300μs pulse width, 1% duty cycle

(2) Thermal resistance from junction to lead vertical P.C.B. mounting, 0.500" (12.7mm) lead length with 2.5 x 2.5" (63.5 x 63.5mm) copper pad

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

Fig. 1 - Forward Current Derating Curve

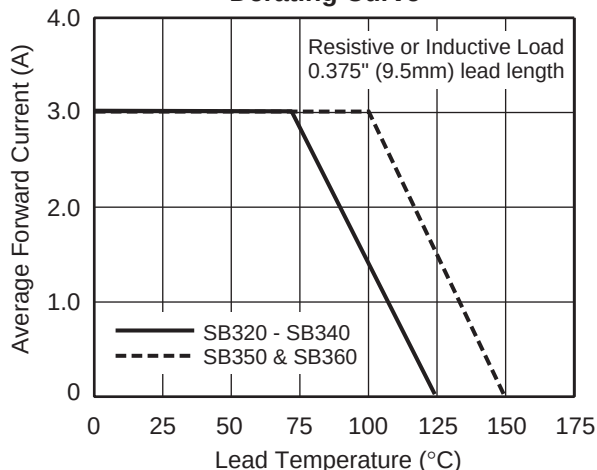


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

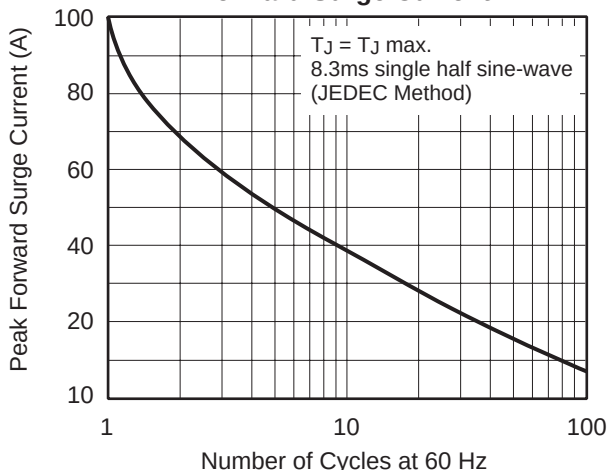


Fig. 3 - Typical Instantaneous Forward Characteristics

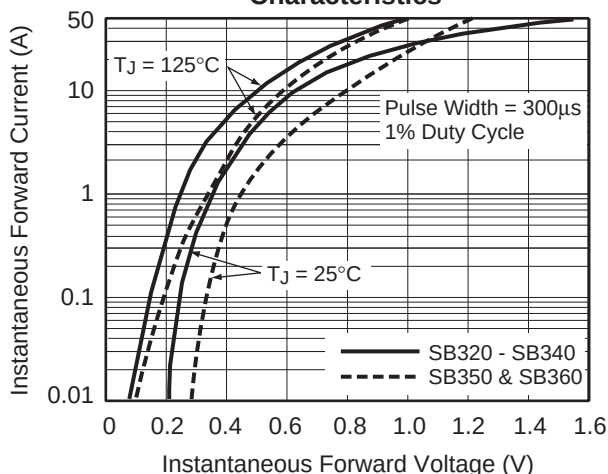


Fig. 4 - Typical Reverse Characteristics

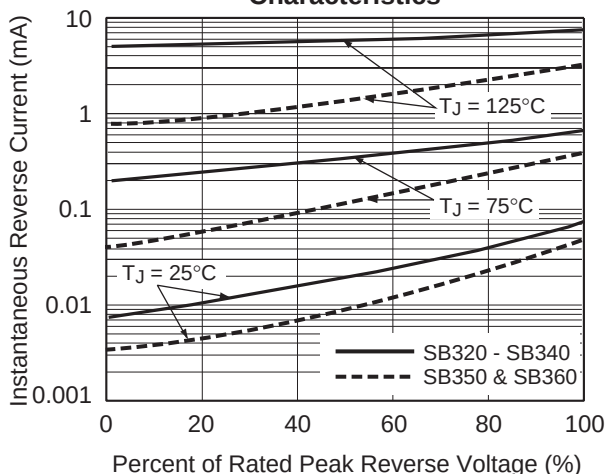


Fig. 5 - Typical Junction Capacitance

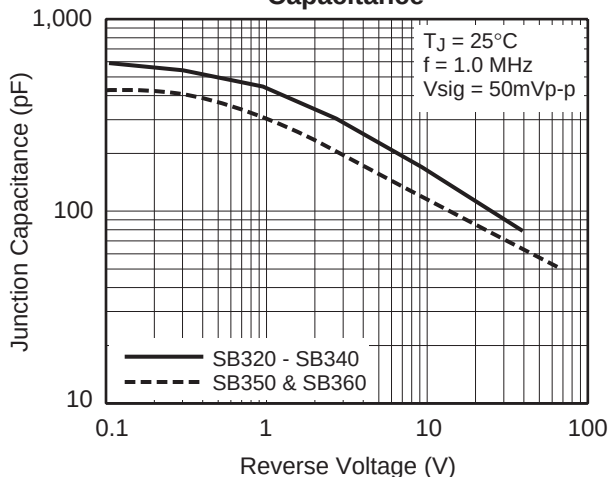


Fig. 6 - Typical Transient Thermal Impedance

