

Schottky Barrier Rectifier



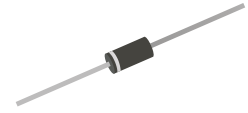
SMD Diodes Specialist

SB320-G Thru. SB370-G

Forward current: 3.0A

Reverse voltage: 20 to 70V

RoHS Device

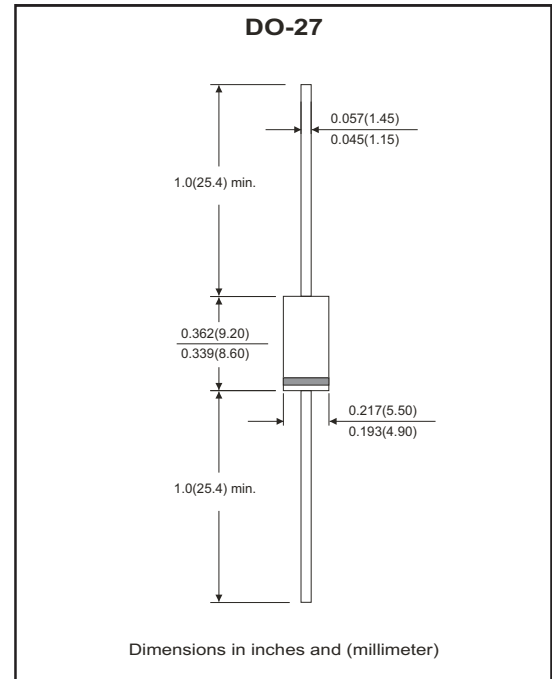


Features

- Fast switching.
- Low forward voltage, high current capability.
- Low power loss, high efficiency.
- High current surge capability.
- High temperature soldering guaranteed: 250 °C/10 seconds, 0.375" (9.5mm) lead length at 5lbs (2.3kg) tension.

Mechanical Data

- Case: transfer molded plastic.
- Epoxy: UL94V-0 rate flame retardant.
- Polarity: color band denoted cathode end.
- Lead: plastic axial lead, solderable per MIL-STD-202E, method 208C.
- Mounting position: any.
- Weight: 0.041 ounce, 1.15 gram.



Maximum Ratings and Electrical Characteristics

Ratings at Ta=25 °C unless otherwise noted.
Single phase, half wave, 60Hz, resistive or inductive loaded.
For capacitive load, derate current by 20% .

Parameter	Symbol	SB320 -G	SB330 -G	SB340 -G	SB350 -G	SB360 -G	SB370 -G	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	70	V
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	49	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	70	V
Maximum average forward rectified current 9.5mm lead length, (See fig.1)	I _{AV}	3.0						A
Peak forward surge current, 8.3ms single half sine-wave, superimposed on rated load (JEDEC method)	I _{FSM}	80						A
Maximum instantaneous forward voltage at I _F =3.0A (Note 1)	V _F	0.50			0.74			V
Maximum DC reverse current at rated DC blocking voltage	TA=25 °C	0.5						mA
	TA=100 °C	20.0			10.0			
Typical junction capacitance (Note 2)	C _J	40						pF
Typical thermal resistance (Note 3)	R _{θJA}	40						°C/W
Operating junction temperature range	T _J	-55 ~ +125			-55 ~ +150			°C
Storage temperature range	T _{STG}	-55 ~ +150						°C

- Note:
1. Test pulse: 300µS pulse width, 1% duty cycle.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 3. Thermal resistance junction to ambient .

RATING AND CHARACTERISTIC CURVES (SB320-G Thru. SB370-G)

Fig.1 Typical Forward Current Derating Curve

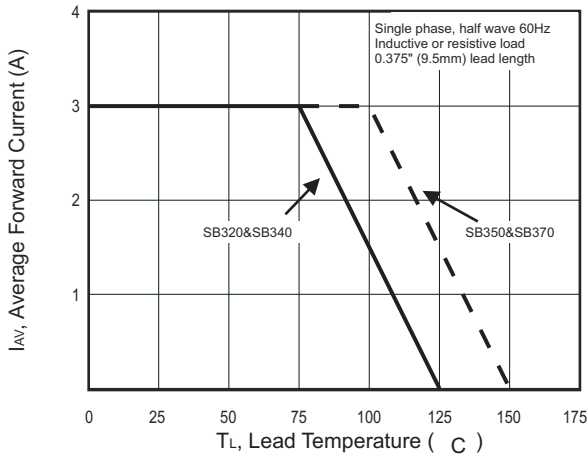


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

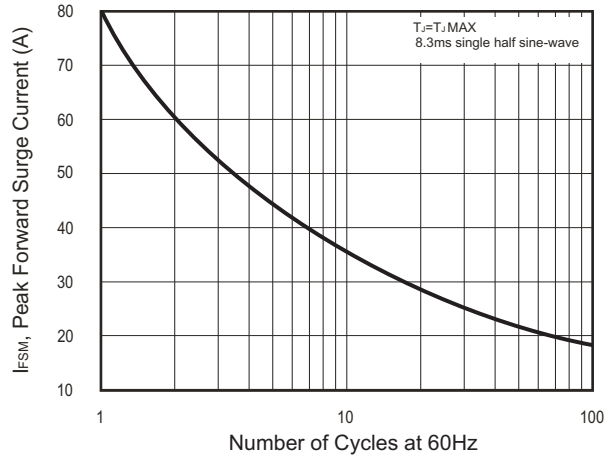


Fig.3 Typical Instantaneous Forward Characteristics

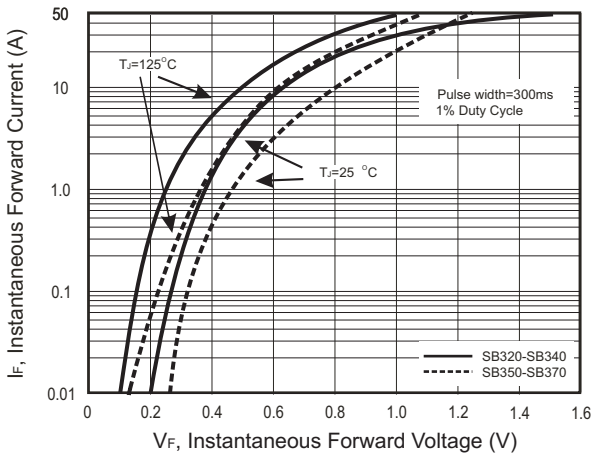


Fig.4 Typical Reverse Characteristics Characteristics

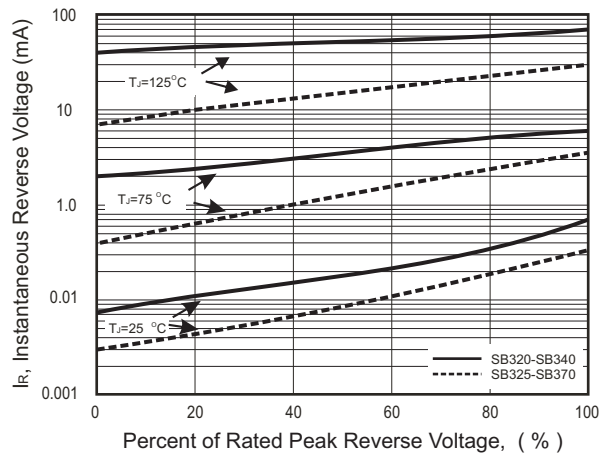


Fig.5 Typical Junction Capacitance

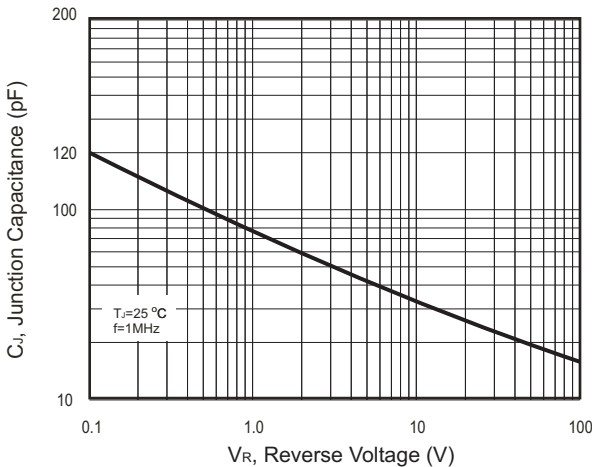


Fig.6 Typical Transient Thermal Impedance

