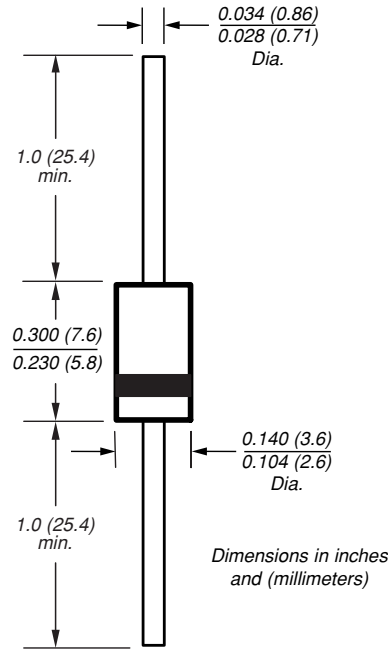


Schottky Barrier Rectifier

Reverse Voltage 20 to 60V
Forward Current 2.0A

DO-204AC (DO-15)



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
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

Mechanical Data

Case: JEDEC DO-204AC molded plastic body over passivated chip
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.015 oz., 0.4 g

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

Parameter	Symbol	SB220	SB230	SB240	SB250	SB260	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)}	2.0					A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	60					A
Maximum Full Load Reverse Current, Full Cycle Average at T _A = 75°C	I _{R(AV)}	30					mA
Typical thermal resistance (Note 2)	R _{θJA}	45					°C/W
	R _{θJL}	14					
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)

Maximum instantaneous forward voltage at 2.0A (Note 1)	V _F	0.50		0.68		V
Maximum instantaneous reverse current at rated DC blocking voltage (Note 1)	I _R	T _A = 25°C		0.5		mA
		T _A = 100°C		15 8.0		
Typical Junction Capacitance	C _J	170				pF

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

Ratings and Characteristic Curves

Fig. 1 - Forward Current Derating Curve

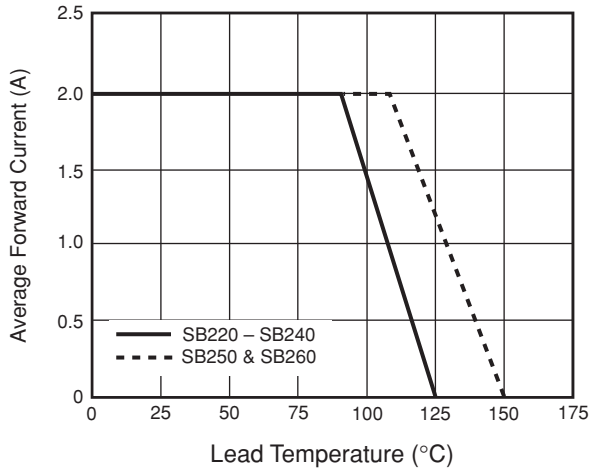


Fig. 2 - Maximum Non-repetitive Surge Current

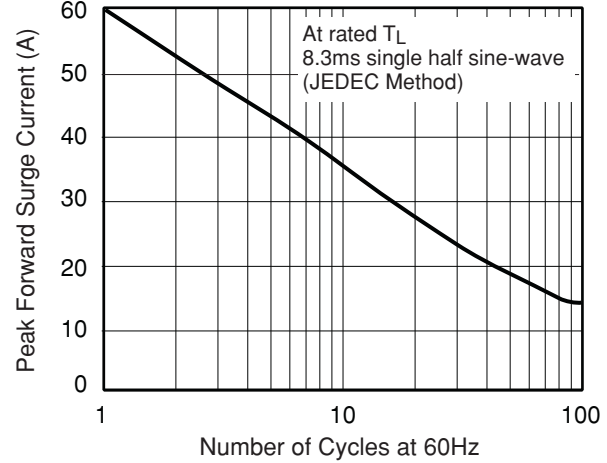


Fig. 3 - Typical Instantaneous Forward Characteristics

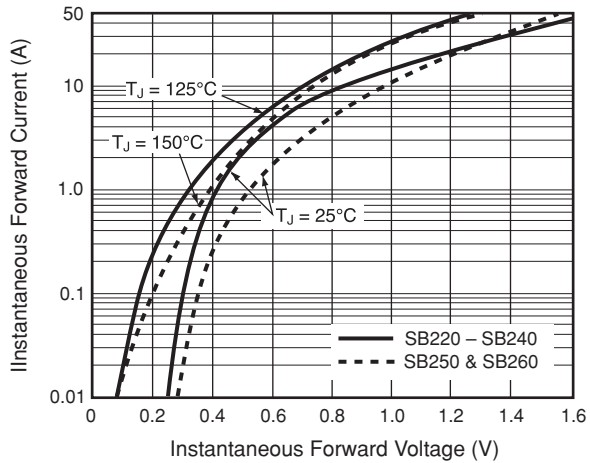


Fig. 4 - Typical Reverse Characteristics

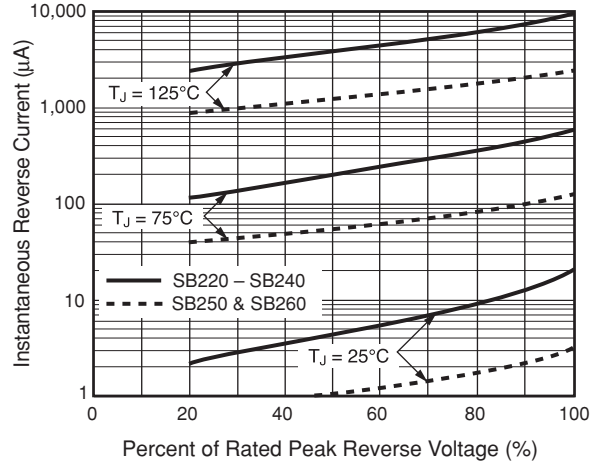


Fig. 5 - Typical Junction Capacitance

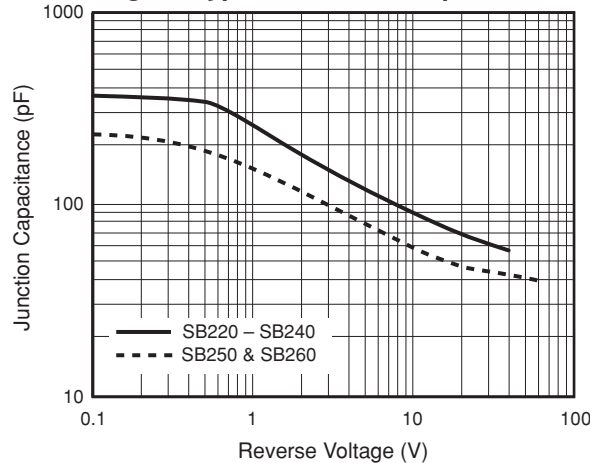


Fig. 6 - Typical Transient Thermal Impedance

