

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - **70 to 100** Volts
FORWARD CURRENT - **1.0** Ampere

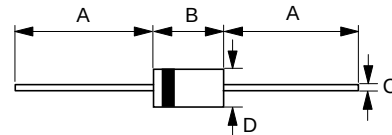
FEATURES

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case : JEDEC DO-41 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.012 ounces, 0.34 grams
- Mounting position : Any

DO-41



DO-41		
Dim.	Min.	Max.
A	25.4	-
B	4.10	5.20
C	0.71 $\varnothing$	0.86 $\varnothing$
D	2.00 $\varnothing$	2.70 $\varnothing$
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	SB170	SB180	SB190	SB1100	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	70	80	90	100	V
Maximum RMS Voltage	V_{RMS}	49	56	63	70	V
Maximum DC Blocking Voltage	V_{DC}	70	80	90	100	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Lengths @ $T_L=100^\circ\text{C}$	$I_{(AV)}$	1.0				A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC Method)	I_{FSM}	40				A
Maximum Forward Voltage at $I_F=1.0\text{A}, T_J=25^\circ\text{C}$ $I_F=1.0\text{A}, T_J=100^\circ\text{C}$	V_F	0.79 0.69				V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_J=25^\circ\text{C}$ @ $T_J=100^\circ\text{C}$	I_R	0.2 2.0				mA
Typical Junction Capacitance (Note 1)	C_J	30				pF
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	50				$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +125				$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150				$^\circ\text{C}$

NOTES : 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Thermal Resistance Junction to Lead.

REV. 3, 14-Jun-2001, KDHC03

FIG.1 - FORWARD CURRENT DERATING CURVE

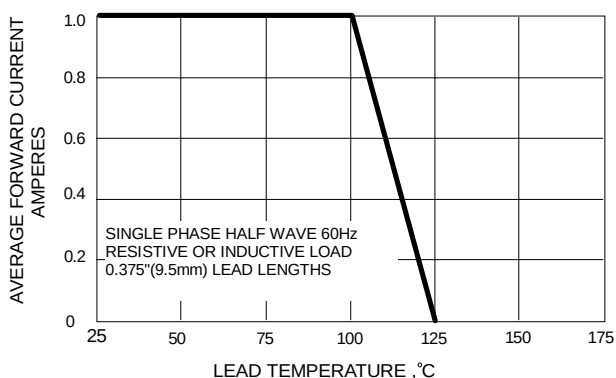


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

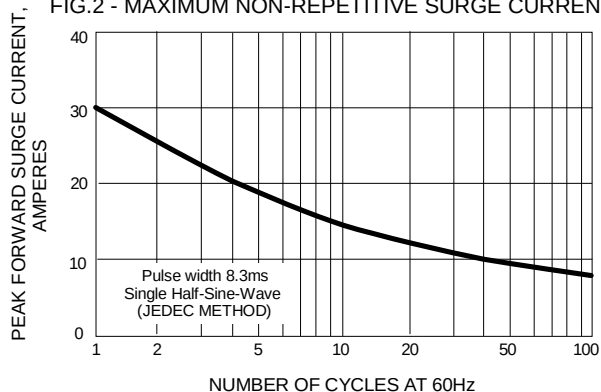


FIG.3 - TYPICAL JUNCTION CAPACITANCE

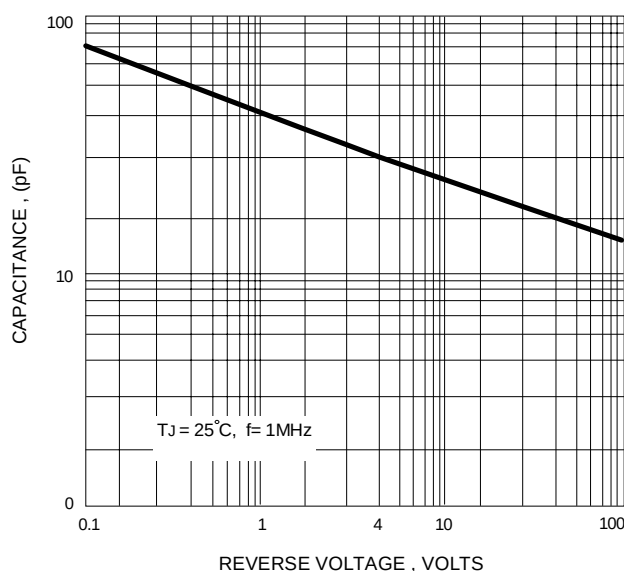


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

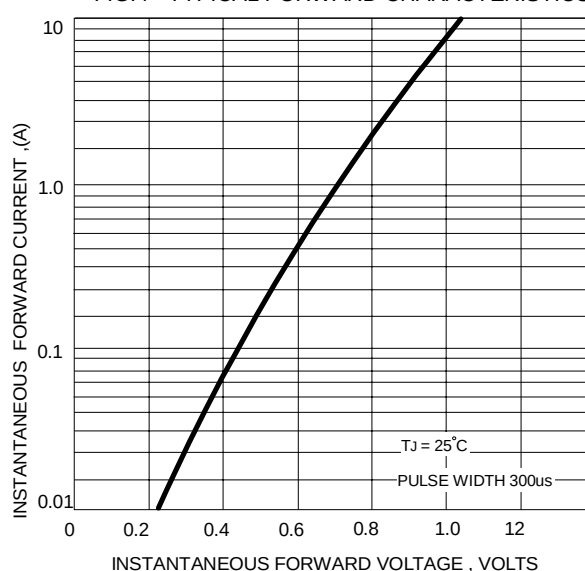


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

