

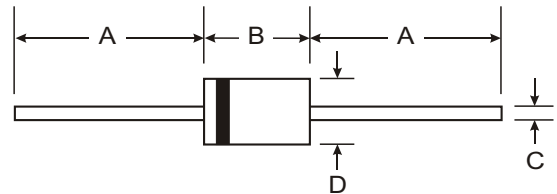
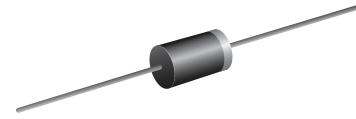
**VOLTAGE RANGE: 100V**  
**CURRENT: 1.0 A**

### Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications

### Mechanical Data

- Case: DO-41, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.34 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



DO-41		
Dim	Min	Max
A	25.40	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	SB1A0	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	100	Volts
Maximum RMS voltage	V <sub>RMS</sub>	70	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	100	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length (see fig.1)	I <sub>(AV)</sub>	1.0	Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	40.0	Amps
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	0.85	Volts
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>	1.0 10.0	mA
<small>T<sub>A</sub>=25°C</small> <small>T<sub>A</sub>=100°C</small>			
Typical junction capacitance (NOTE 1)	C <sub>J</sub>	80	pF
Typical thermal resistance (NOTE 2)	R <sub>qJA</sub>	50.0	°C/W
Operating junction temperature range	T <sub>J</sub>	-65 to +150	°C
Storage temperature range	T <sub>STG</sub>	-65 to +150	°C

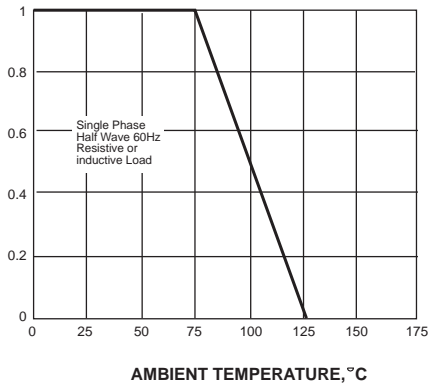
**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted



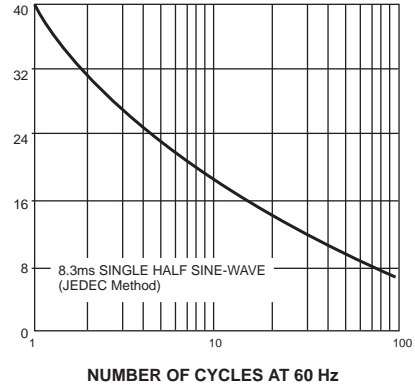
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



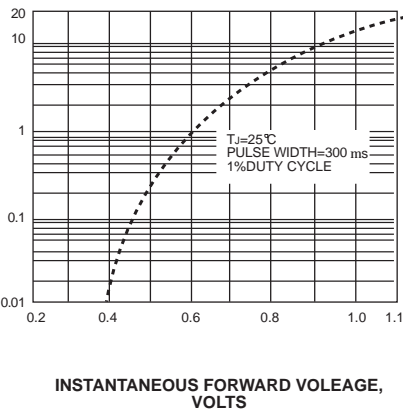
PEAK FORWARD SURGE CURRENT, AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



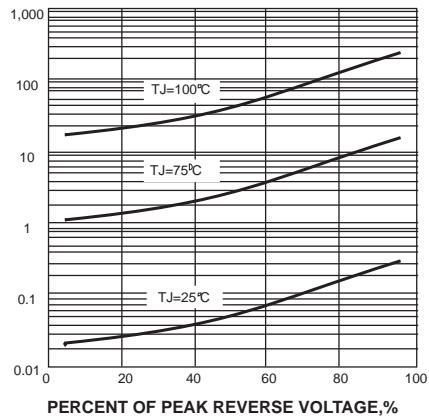
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



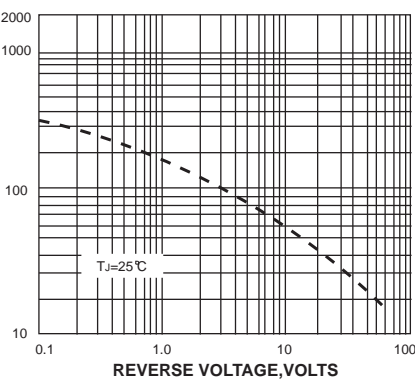
INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

