

## Features

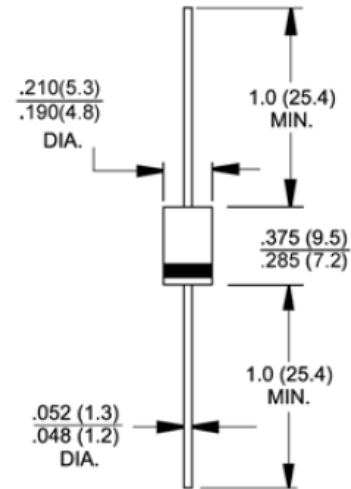
- ◆ Metal-Semiconductor junction with guard ring
- ◆ Epitaxial construction
- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ The plastic material carries UL recognition 94V-0
- ◆ For use in low voltage , high frequency inverters , free wheeling , and polarity protection applications



**DO-201AD**

## Mechanical Data

- ◆ Case : JEDEC DO-20AD molded plastic
- ◆ Polarity : Color band denotes cathode
- ◆ Weight : 0.014 ounce , 1.15 gram
- ◆ Mounting position : Any



**Dimensions in inches and (millimeters)**

## 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%

Parameter	Symbol	SB 3B5	SB3C0	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	150	200	Volts
Maximum RMS voltage	$V_{RMS}$	105	140	Volts
Maximum DC blocking voltage	$V_{DC}$	150	200	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_L=100^\circ\text{C}$	$I_{F(AV)}$	3.0		Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	100		Amps
Maximum DC reverse current @ $T_j=25^\circ\text{C}$ at rated DC blocking voltage @ $T_j=100^\circ\text{C}$	$I_R$	0.01	5	mA
Maximum forward voltage at 3.0A DC	$V_F$	0.90		Volts
Typical thermal resistance(Note 2)	$R_{\theta JL}$	15		$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_j$	-55 to +150		$^\circ\text{C}$
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.

# RATINGS AND CHARACTERISTIC CURVES

FIG.1 – FORWARD CURRENT DERATING CURVE

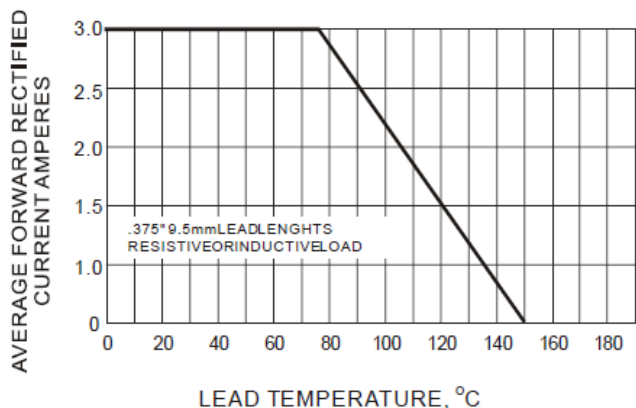


FIG. 2 – MAXIMUM NON-REPETITIVE AVERAGE FORWARD SURGE CURRENT

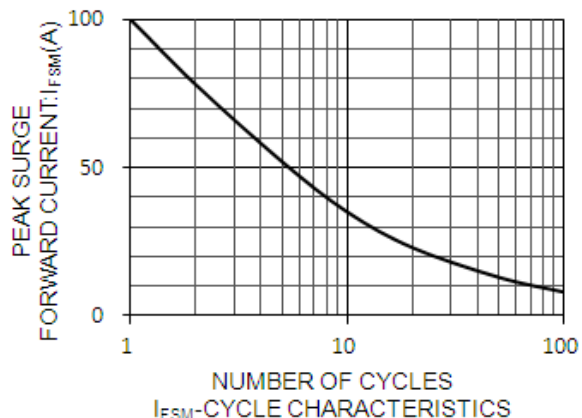


FIG.3 – TYPICAL REVERSE CHARACTERISTIC

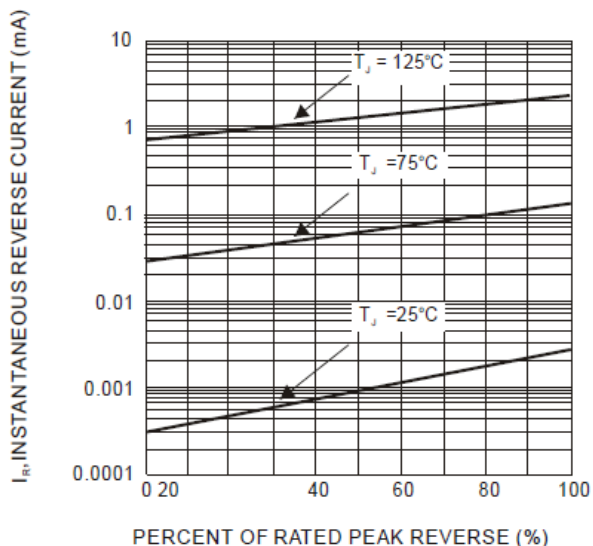


FIG.4 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

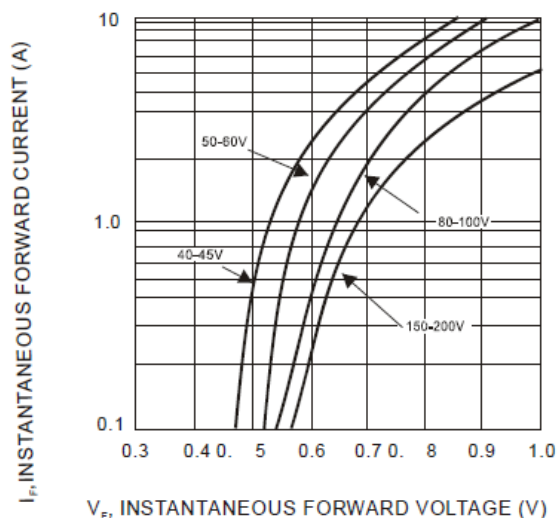


FIG.5 – TYPICAL TOTAL CAPACITANCE

