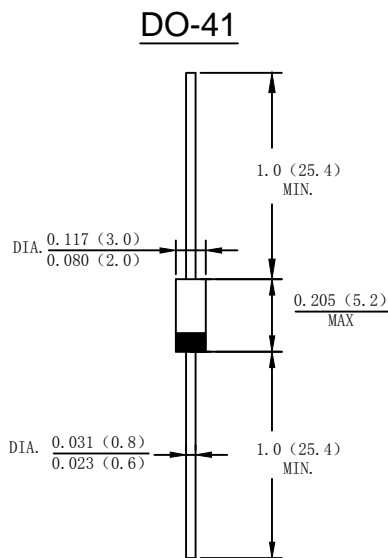


### Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Plastic material-UL flammability 94V-0

### Mechanical Data

- Case: Molded plastic DO-41
- Terminals: Plated leads solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Making: Type Number
- Lead Free: For RoHS/Lead Free Version



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load

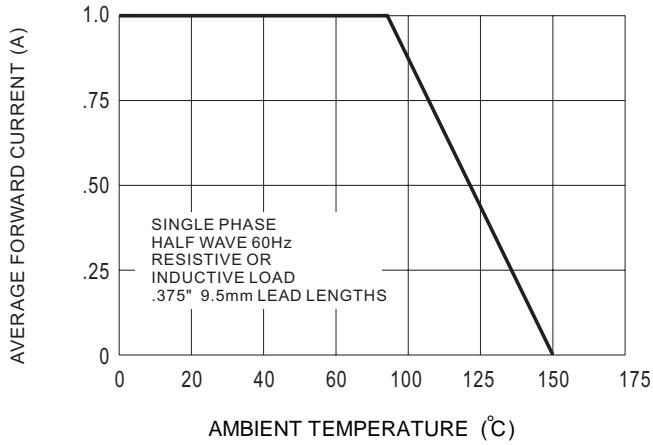
For capacitive load derate current by 20%

Type Number	SYMBOL	SB 120	SB 130	SB 140	SB 145	SB 150	SB 160	SB 180	SB 1100	SB 1150	SB 1200	SB 1250	Unit	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	45	50	60	80	100	150	200	250	V	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	31.5	35	42	56	70	105	140	175	V	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	45	50	60	80	100	150	200	250	V	
Average Rectified Output Current (Note 1) @ $T_A = 75^\circ C$	$I_o$	1.0											A	
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30											A	
Forward Voltage @ $I_F = 1.0A$	$V_{FM}$	0.55			0.7		0.85		0.92		0.95		V	
Peak Reverse Current @ $T_A = 25^\circ C$	$I_R$	0.1						0.05						mA
At Rated DC Blocking Voltage @ $T_A = 100^\circ C$		10.0						5.0						
Typical Junction Capacitance (Note 2)	$C_J$	110											pF	
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	80											$^\circ C/W$	
Operating Temperature Range	$T_J$	-55 to +150											$^\circ C$	
Storage Temperature Range	$T_{STG}$	-55 to +150											$^\circ C$	

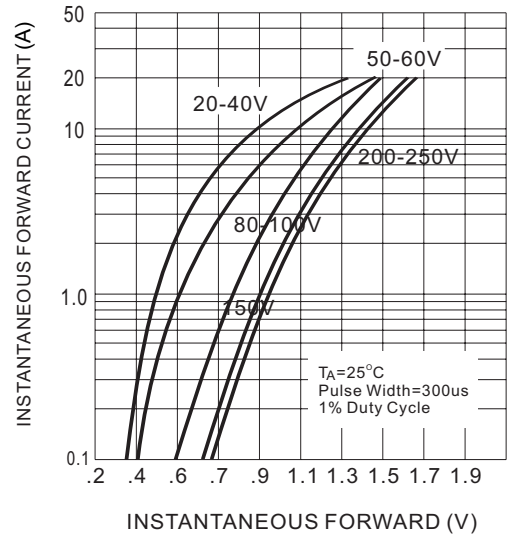
Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case

2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

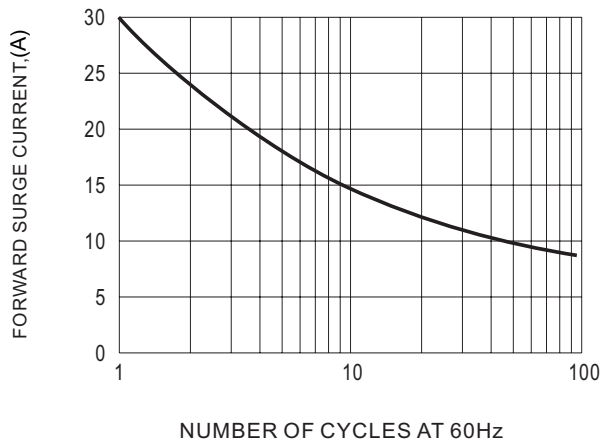
**Fig.1-FORWARD CURRENT DERATING CURVE**



**Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**Fig.3-MAXIMUM NON-REPETITIVE SURGE CURRENT**



**Fig.4-TYPICAL JUNCTION CAPACITANCE**

