

## Features

- Low power loss ,high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Guarding for over voltage protection
- High temperature soldering guaranteed: 260°C/10 seconds at terminals

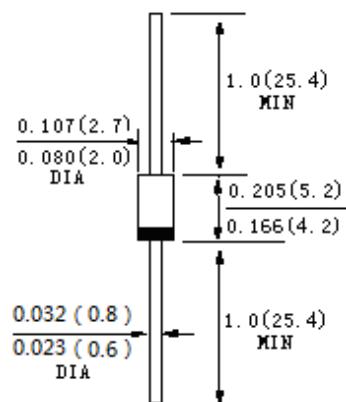
## Mechanical Data

**Case:** DO-41 Molded plastic

**Polarity:** Color band denotes cathode end

**Lead:** Pure tin plated, lead free

DO-41



Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

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

For capacitive load, derate current by 20%

TYPE NUMBER	Symbols	SB120	SB130	SB140	SB150	SB160	SB180	SB1100	Units				
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	V				
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	V				
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	V				
Maximum average forward rectified current 9.5mm lead length (See fig. 1)	I <sub>F(AV)</sub>	1.0							A				
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30							A				
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	0.55		0.7		0.85		V					
Maximum instantaneous reverse current at rated DC blocking voltage Ta=25°C Ta=100°C	I <sub>R</sub>	0.5 10							mA				
Operating junction temperature range	T <sub>J</sub>	-55 to +150							°C				
Storage temperature range	T <sub>stg</sub>	-55 to +150							°C				

## Characteristic Curves

Fig. 1 - Forward Current Derating Curve

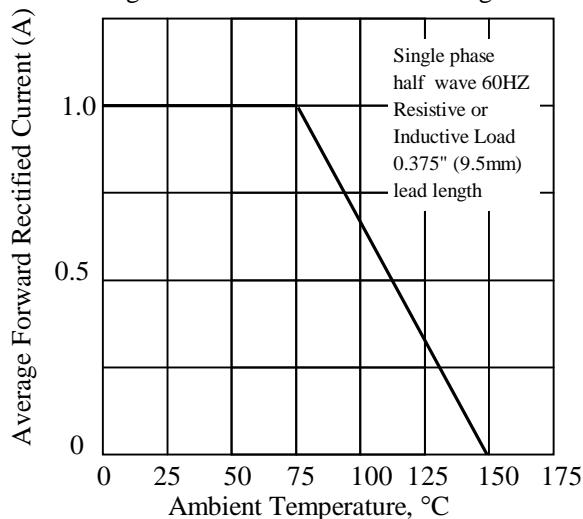


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

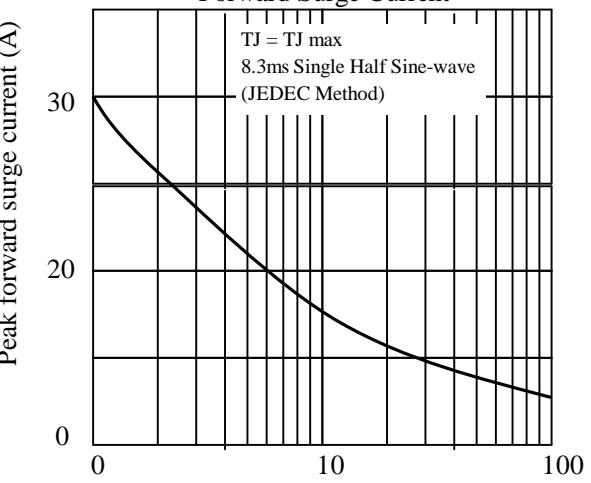


Fig 3. - Typical Instantaneous Forward Characteristics

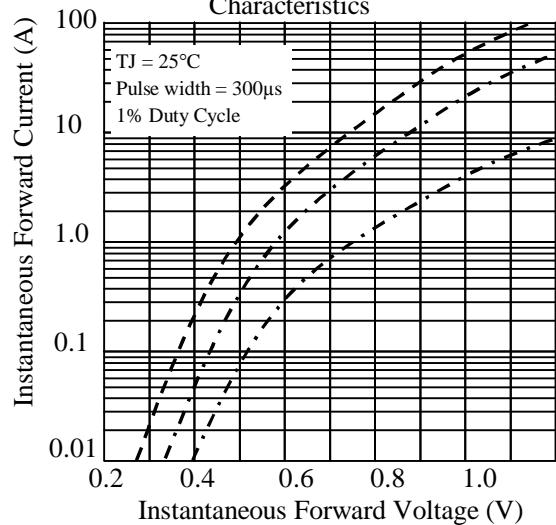


Fig 4. - Typical Reverse Characteristics

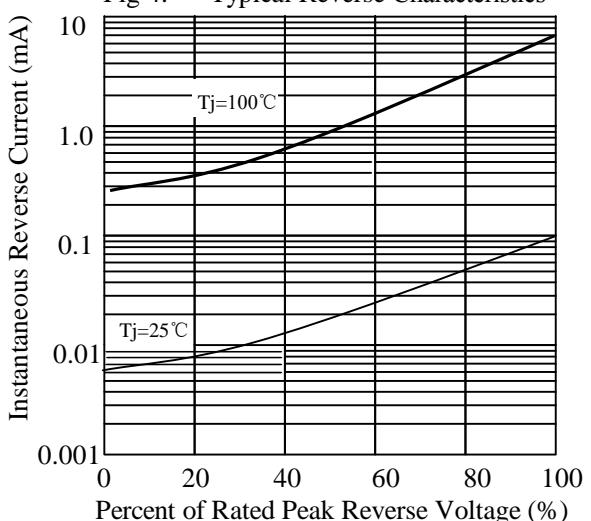


Fig 5. - typical Junction Capacitance

