



**VOLTAGE RANGE: 20 --- 200 V**  
**CURRENT: 2.0 A**

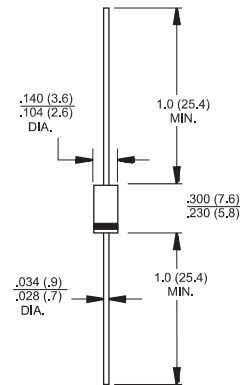
## Features

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

## Mechanical Data

- ✧ Case: JEDEC DO-15, molded plastic
- ✧ Terminals: Axial lead, solderable per MIL-STD-750, Method 2026
- ✧ Polarity: Color band denotes cathode
- ✧ Weight: 0.014 ounces, 0.39 grams
- ✧ Mounting position: Any

### DO-15



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

		SR220	SR230	SR240	SR250	SR260	SR280	SR2100	SR2150	SR2200	UNITS	
Maximum recurrent peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	V	
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	V	
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	V	
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ\text{C}$	$I_{F(AV)}$	2.0									A	
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	$I_{FSM}$	50.0									A	
Maximum instantaneous forward voltage @ 2.0A (Note 1)	$V_F$	0.55			0.7		0.85				V	
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	$I_R$	1.0					10.0					mA
Typical junction capacitance (Note2)	$C_J$	170									pF	
Typical thermal resistance (Note3)	$R_{\theta JA}$	35									°C/W	
Operating junction temperature range	$T_J$	- 55 ---- + 150									°C	
Storage temperature range	$T_{STG}$	- 55 ---- + 150									°C	

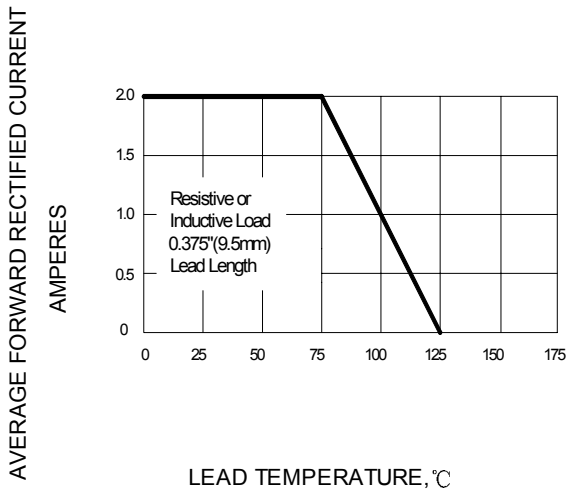
NOTE: 1. Pulse test: 300us pulse width, 1% duty cycle.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

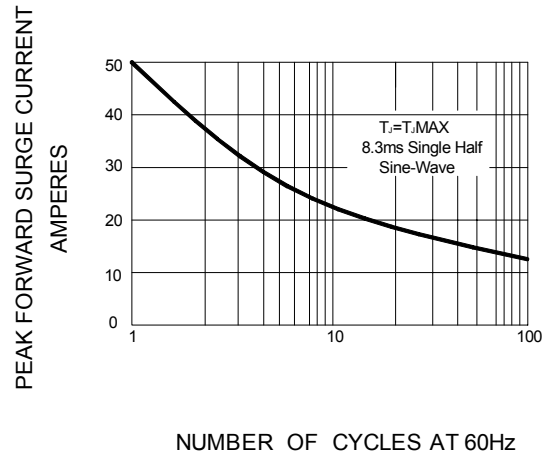
3. Thermal resistance junction to ambient

## Ratings AND Characteristic Curves

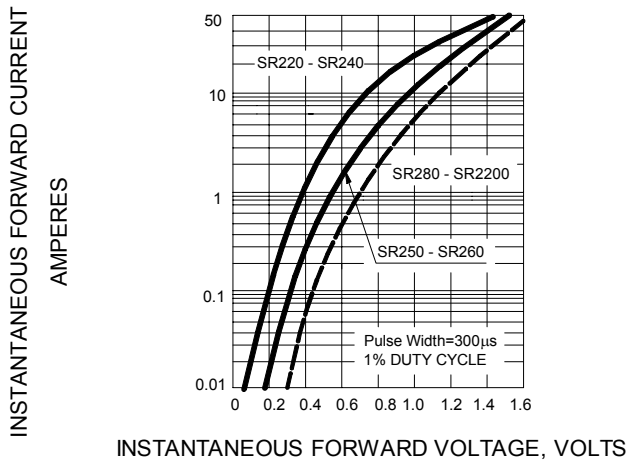
**FIG.1 -- FORWARD CURRENT DERATING CURVE**



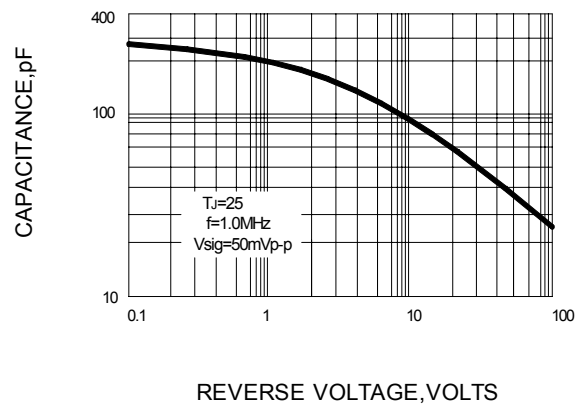
**FIG.2 -- PEAK FORWARD SURGE CURRENT**



**FIG.3 -- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4 -- TYPICAL JUNCTION CAPACITANCE**



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
DO-15	3000/AMMO	30000	42X28X31	12.00	10.00