



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

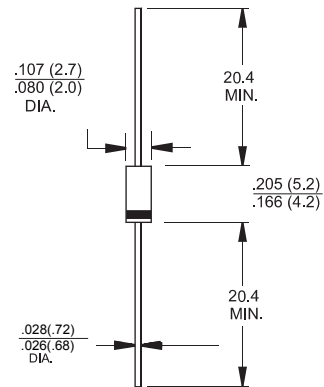
Features

- ✧ 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: 0.009 ounces, 0.26 grams
- ✧ Mounting position: Any

DO-41



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%.

		SR220S	SR230S	SR240S	SR250S	SR260S	SR280S	SR2100S	SR2150S	SR2200S	UNITS	
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	100	100	V	
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	70	70	V	
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	100	100	V	
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ C$	$I_{F(AV)}$	2.0									A	
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	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 @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$	I_R	0.5					0.1					mA
		10.0										
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					- 55 ---- + 175					°C
Storage temperature range	T_{STG}	- 55 ---- + 150					- 55 ---- + 175					°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

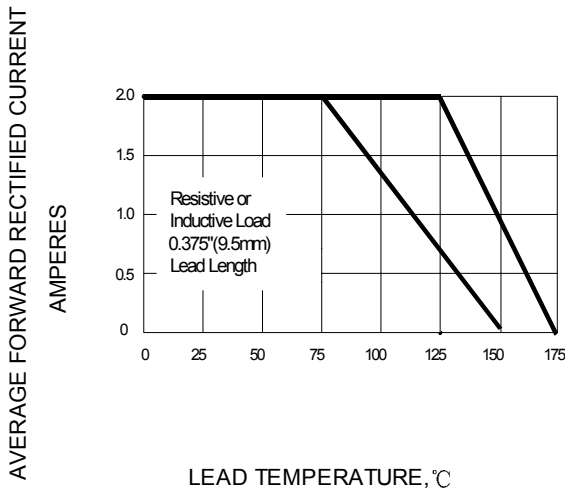


FIG.2 -- PEAK FORWARD SURGE CURRENT

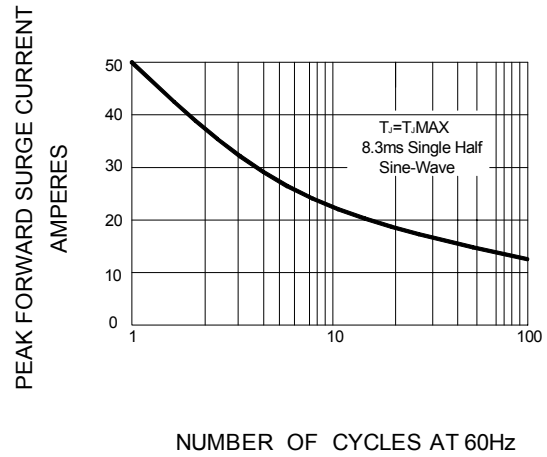


FIG.3 -- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

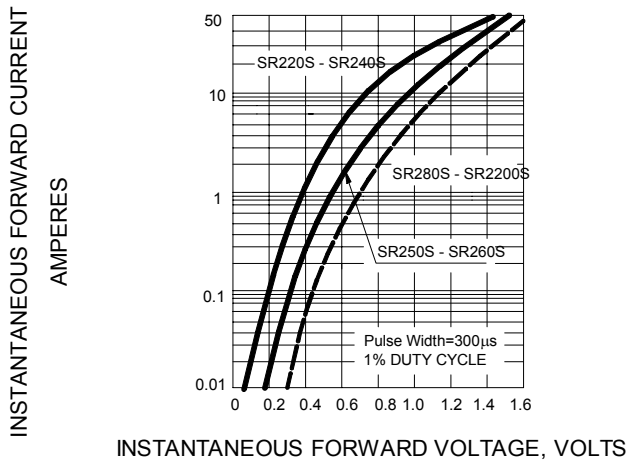
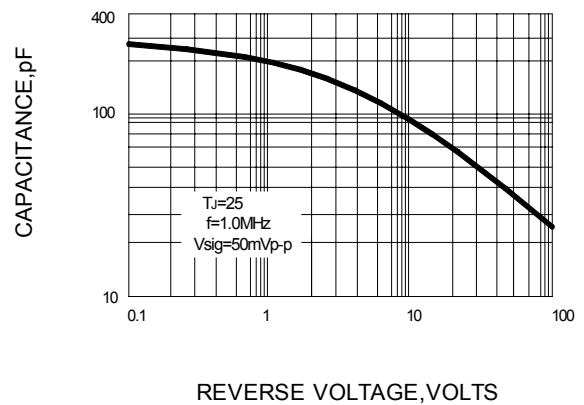


FIG.4 -- TYPICAL JUNCTION CAPACITANCE



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
DO-41	5000/AMMO	50000	42X28X31	14.00	12.00