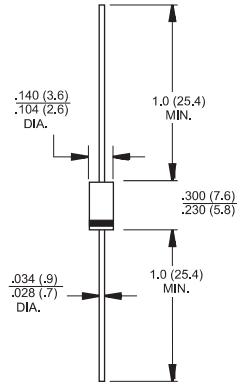




DO-15



Features

- ✧ Low power loss, high efficiency.
- ✧ High current capability, Low VF.
- ✧ High reliability
- ✧ High surge current capability.
- ✧ Epitaxial construction.
- ✧ Guard-ring for transient protection.
- ✧ For use in low voltage, high frequency inverter, free wheeling, and polarity protection application

Mechanical Data

- ✧ Cases: DO-201AD molded plastic
- ✧ Polarity: Color band denotes cathode
- ✧ High temperature soldering guaranteed: 260°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✧ Weight: 0.014ounces,0.39 grams

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	Symbol	SR3	SR3	SR3	SR3	SR3	SR3	SR3	SR3	SR3	SR3	Units	
		20S	30S	40S	50S	60S	80S	90S	100S	150S	200S		
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	90	100	150	200	V	
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	63	70	105	140	V	
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	90	100	150	200	V	
Maximum Average Forward Rectified Current See Fig. 1	$I_{(AV)}$	3.0										A	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80.0										A	
Maximum Instantaneous Forward Voltage @3.0A	V_F	0.45	0.55		0.70		0.85					V	
Maximum D.C. Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	I_R	10				5		2.0					mA
Typical Junction Capacitance (Note 2)	C_j	200				130		72					pF
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$ $R_{\theta JC}$					50		15					°C/W
Operating Junction Temperature Range	T_J	-55 to +150					-55 to +175					°C	
Storage Temperature Range	T_{STG}	-55 to +150					-55 to +175					°C	

Notes: 1. Mount on Cu-Pad Size 16mm x 16mm on P.C.B.



RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

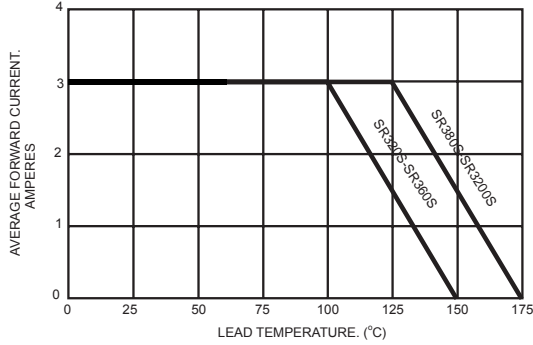


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

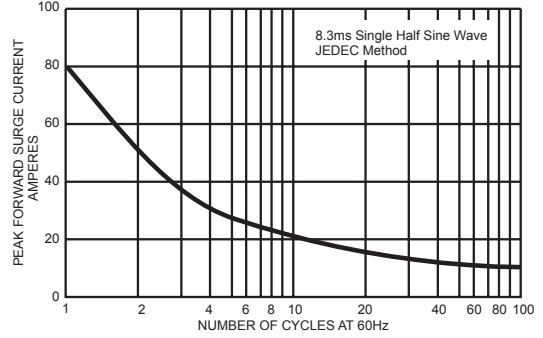


FIG.3- TYPICAL FORWARD CHARACTERISTICS

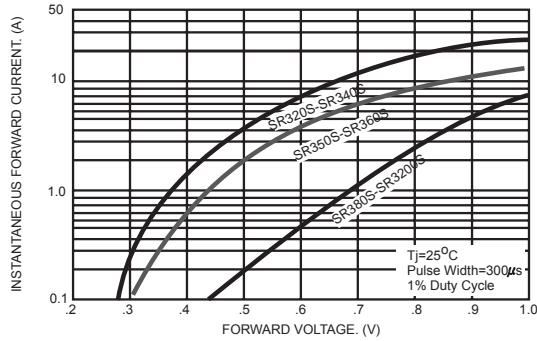


FIG.4- TYPICAL REVERSE CHARACTERISTICS

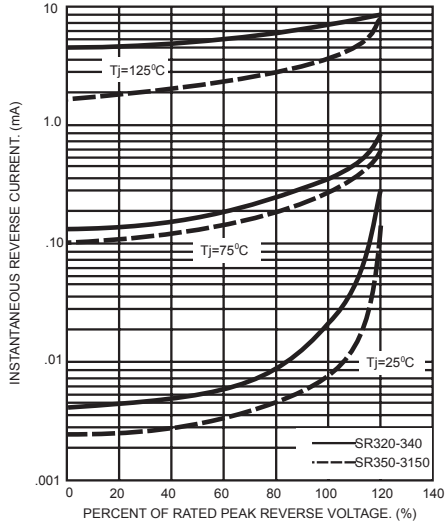


FIG.5- TYPICAL JUNCTION CAPACITANCE

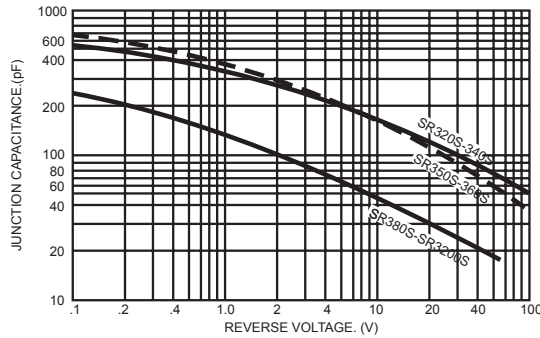


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

