DATA SHEET

SEMICONDUCTOR

SR802~SR815

8.0 AMPS. Schottky Barrier Rectifiers

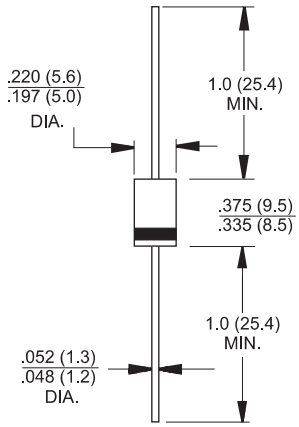
Features

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 inventor, free wheeling, and polarity protection application

Mechanical Data

Cases: DO-201AD molded plastic
Epoxy: UL 94V-0 rate flame retardant
Lead: Pure tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
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: 1.1 grams

DO-201AD



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	SR 802	SR 803	SR 804	SR 805	SR 806	SR 808	SR 810	SR 815	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	150	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	105	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	150	V
Maximum Average Forward Rectified Current See Fig. 1	$I_{(AV)}$	8.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150								A
Maximum Instantaneous Forward Voltage @8.0A	V_F	0.55			0.70		0.92		1.02	V
Maximum D.C. Reverse Current @ T_A=25°C	I_R	0.5					0.1			mA
at Rated DC Blocking Voltage @ T_A=125°C		15			10		5.0			mA
Typical Junction Capacitance (Note 2)	Cj	500			270		165			pF
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	40								°C/W
Operating Junction Temperature Range	T_J	-55 to +125			-55 to +150					°C
Storage Temperature Range	T_{STG}	-55 to +150								°C

Notes: 1. Mount on Cu-Pad Size 16mm x 16mm on P.C.B.
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

DEVICE CHARACTERISTICS

SR802~SR815

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

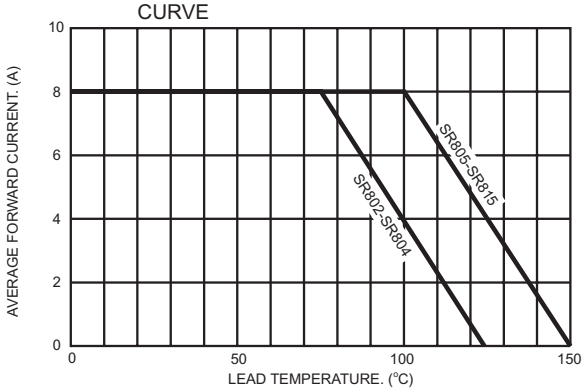


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

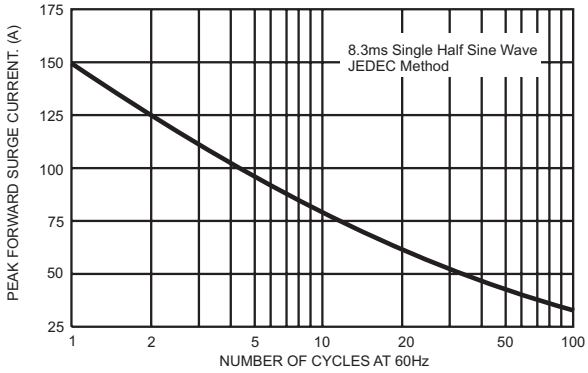


FIG.3- TYPICAL FORWARD CHARACTERISTICS

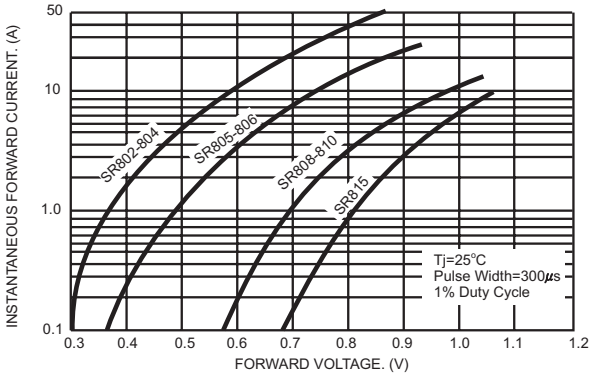


FIG.4- TYPICAL REVERSE CHARACTERISTICS

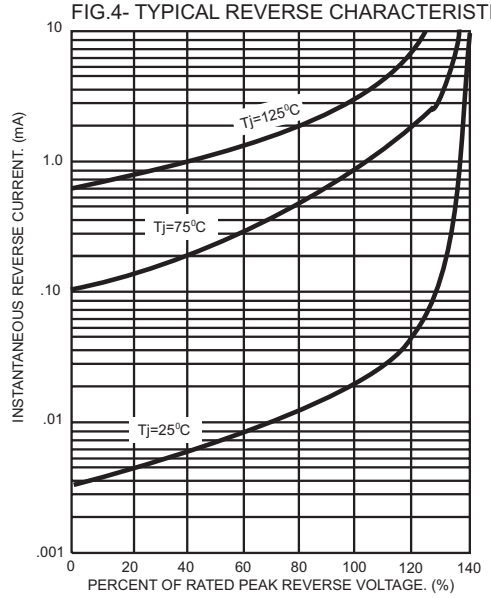


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

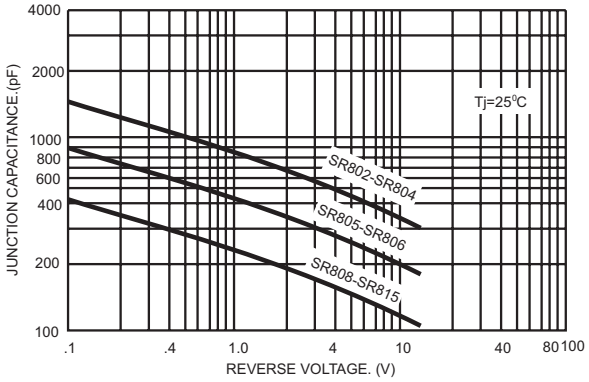


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS