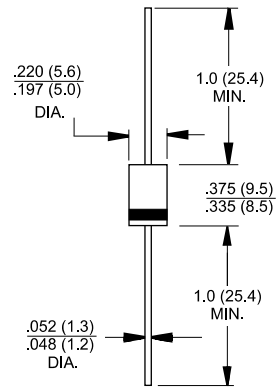
SR302 THRU SR310

3.0 AMPS. Schottky Barrier Rectifiers

Voltage Range
20 to 100 Volts
Current
3.0 Amperes

DO-201AD



Dimensions in inches and (millimeters)

Features

- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability

Mechanical Data

- ✧ Cases: DO-201AD molded plastic
- ✧ Epoxy: UL 94V-O rate flame retardant
- ✧ Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: Color band denotes cathode end
- ✧ High temperature soldering guaranteed: 250^{O}C/10 seconds/.375",(9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✧ Weight: 1.1 grams

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number	SR302	SR303	SR304	SR305	SR306	SR309	SR310	Units
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	90	100	V
Maximum RMS Voltage	14	21	28	35	42	63	70	V
Maximum DC Blocking Voltage	20	30	40	50	60	90	100	V
Maximum Average Forward Rectified Current See Fig. 1	3.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	80					150		A
Maximum Instantaneous Forward Voltage @3.0A	0.55			0.70		0.79		V
Maximum D.C. Reverse Current @ T_A=25℃	0.5					0.6		mA
at Rated DC Blocking Voltage @ T_A=100℃	30					20		mA
Typical Thermal Resistance (Note 1) RθJA	40							℃/W
Typical Junction Capacitance (Note 2)	300			250		72		pF
Operating Junction Temperature Range T_J	-65 to +125			-65 to +150				℃
Storage Temperature Range T_{STG}	-65 to +150							℃

Notes: 1. Thermal Resistance from Junction to Ambient Vertical P.C. Board Mounting, 0.375"(9.5mm) Lead Length
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES (SR302 THUR SR310)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

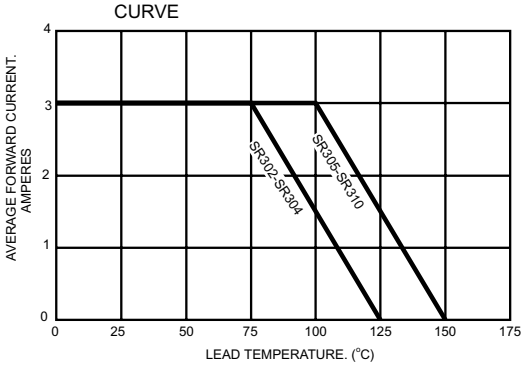


FIG.2- TYPICAL FORWARD CHARACTERISTICS

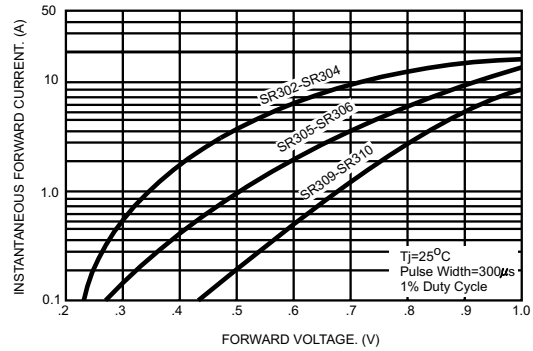


FIG.3- TYPICAL REVERSE CHARACTERISTICS

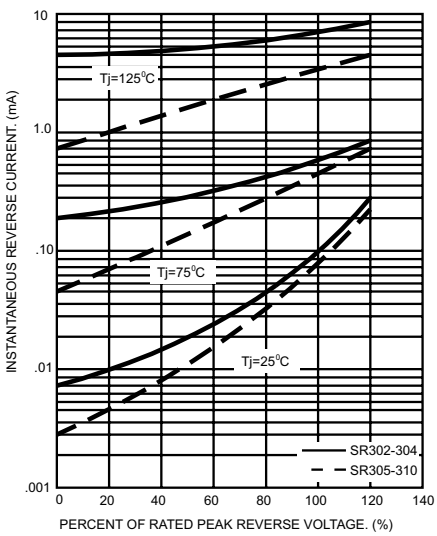


FIG.4- TYPICAL JUNCTION CAPACITANCE

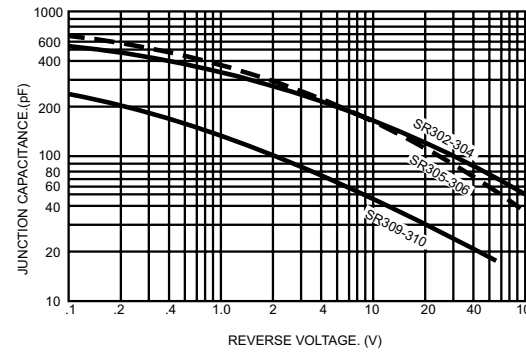
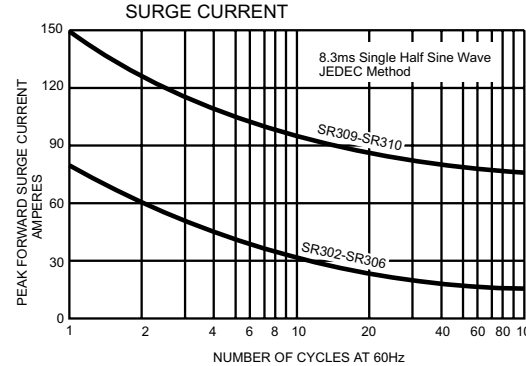



FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT