ARS25 / AR25 SERIES

25.0 AMPS. High Current Plastic Silicon Rectifiers

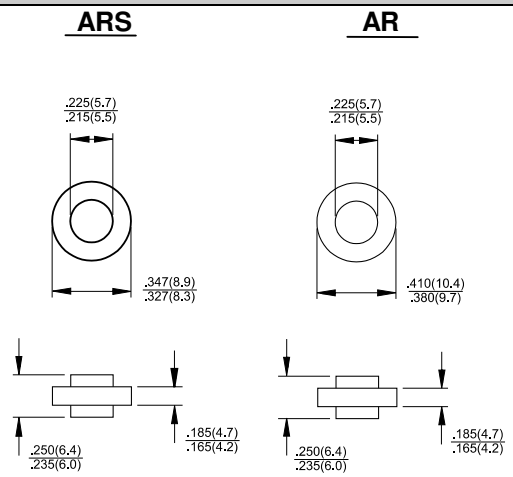
Voltage Range
50 to 1000 Volts
Current
25.0 Amperes

Features

- ✧ Plastic material used carries Underwriters Laboratory Classification 94V-O
- ✧ Low cost construction utilizing void-free molded plastic technique
- ✧ Low cost
- ✧ Diffused junction
- ✧ Low leakage
- ✧ High surge capability
- ✧ High temperature soldering guaranteed: 250°C for 10 seconds

Mechanical Data

- ✧ Case: Molded plastic case
- ✧ Terminals: Plated terminals, solderable per MIL-STD-202, Method 208
- ✧ Polarity: Color ring denotes cathode end
- ✧ Weight: 0.07 ounce, 1.8 grams
- ✧ Mounting position: Any



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	ARS 25A AR25A	ARS 25B AR25B	ARS 25D AR25D	ARS 25G AR25G	ARS 25J AR25J	ARS 25K AR25K	ARS 25M AR25M	Units
Maximum Recurrent Peak Revere Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @Tc = 150°C	25							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) at T_J=150°C	400							A
Maximum Instantaneous Forward Voltage @ 25A	1.0							V
Maximum DC Reverse Current @ Tc=25°C at Rated DC Blocking Voltage @ Tc=100°C	5.0 250							uA uA
Typical Reverse Recovery Time (Note 2)	3.0							uS
Typical Junction Capacitance (Note 1) T_J=25°C	300							pF
Typical Thermal Resistance RθJC (Note 3)	1.0							°C/W
Operating and Storage Temperature Range T_J, T_{STG}	-50 to +175							°C

Notes: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.
2. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
3. Thermal Resistance from Junction to Case, Singe Side Cooled.

RATINGS AND CHARACTERISTIC CURVES (ARS25 THRU AR25)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

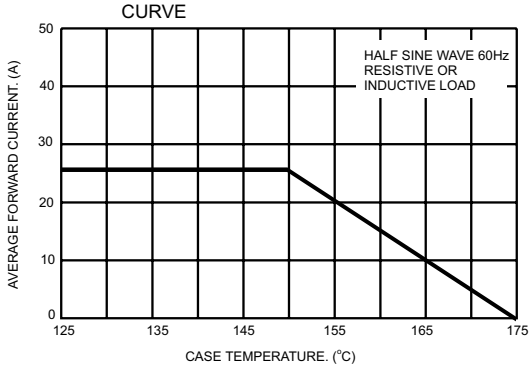


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

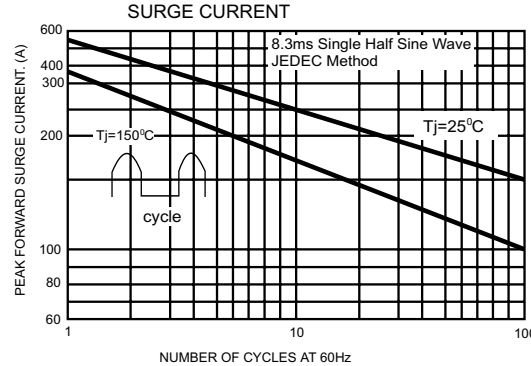


FIG.3- TYPICAL FORWARD CHARACTERISTICS

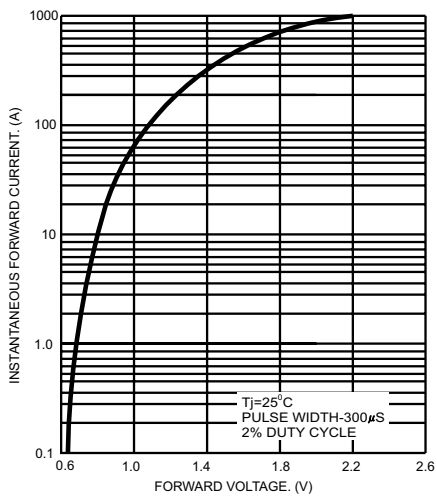


FIG.4- TYPICAL REVERSE CHARACTERISTICS

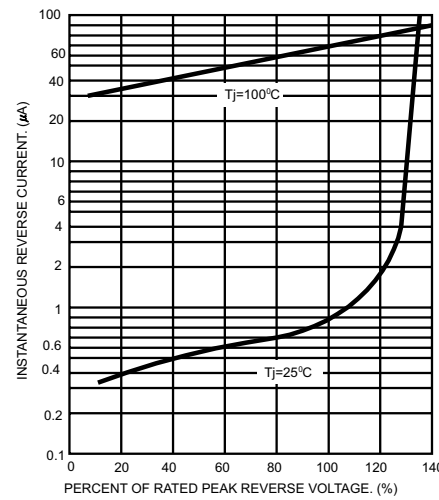


FIG.5- TYPICAL JUNCTION CAPACITANCE