



# ARS35 / AR35

## 35.0 AMPS. High Current Plastic Silicon Rectifiers



Voltage Range  
50 to 1000 Volts  
Current  
35.0 Amperes

### Features

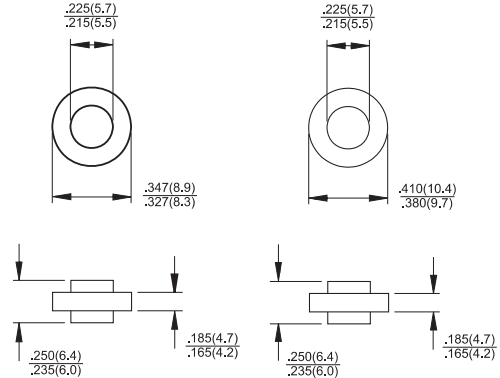
- ✧ Plastic material used carries Underwriters Laboratory Classification 94V-0
- ✧ Low cost construction utilizing void-free molded plastic technique
- ✧ Low cost
- ✧ Diffused junction
- ✧ Low leakage
- ✧ High surge capability
- ✧ High temperature soldering guaranteed: 260°C for 10 seconds

### 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

#### ARS

#### AR



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	ARS	ARS	ARS	ARS	ARS	ARS	ARS	Units
		35A	35B	35D	35G	35J	35K	35M	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ $T_c = 150^\circ C$	$I_{(AV)}$	35							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method ) at $T_J=150^\circ C$	$I_{FSM}$	500							A
Maximum Instantaneous Forward Voltage @ 35A	$V_F$	1.0							V
Maximum DC Reverse Current @ $T_c=25^\circ C$ at Rated DC Blocking Voltage @ $T_c=100^\circ C$	$I_R$	5.0 250							$\mu A$ $\mu A$
Typical Reverse Recovery Time (Note 2)	$T_{rr}$	3.0							$\mu S$
Typical Junction Capacitance ( Note 1 ) $T_J=25^\circ C$	$C_j$	300							pF
Typical Thermal Resistance ( Note 3 )	$R_{\theta JC}$	1.0							$^{\circ}C/W$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-50 to +175							$^{\circ}C$

- 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, Single Side Cooled.

## RATINGS AND CHARACTERISTIC CURVES (ARS35 THRU AR35)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

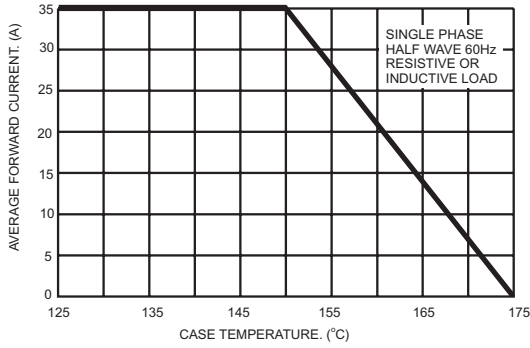


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

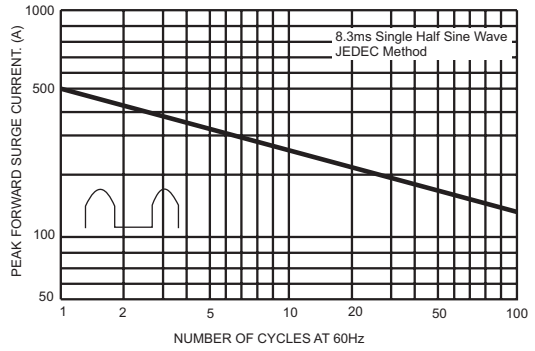


FIG.3- TYPICAL FORWARD CHARACTERISTICS

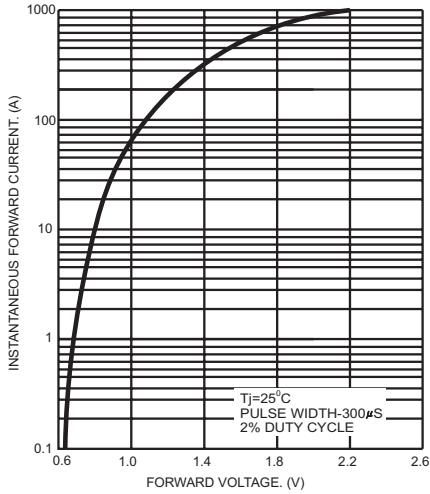


FIG.4- TYPICAL REVERSE CHARACTERISTICS

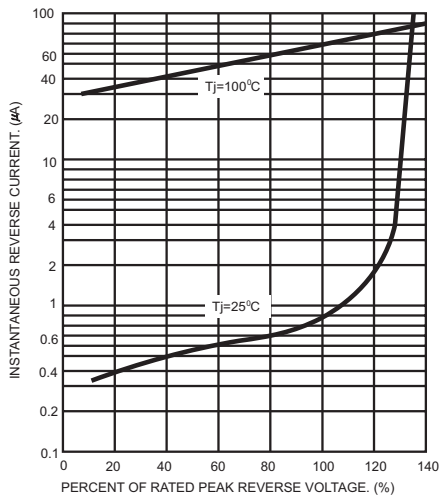


FIG.5- TYPICAL JUNCTION CAPACITANCE

