



ARS35 / AR35

35.0 AMPS. High Current Plastic Silicon Rectifiers



Voltage Range
50 to 1000 Volts
Current
35.0 Amperes

Features

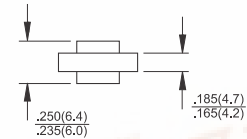
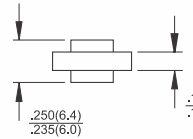
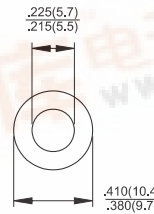
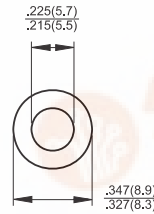
- ✧ Plastic material used carries Underwriters Laboratory Classification 94V-0
- ✧ Low cost construction utilizing void-free molded plastic technique
- ✧ Low cost
- ✧ Diffused junction
- ✧ Low leakage
- ✧ High surge capability
- ✧ High temperature soldering guaranteed: 260°C for 10 seconds

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 35A	ARS 35B	ARS 35D	ARS 35G	ARS 35J	ARS 35K	ARS 35M	Units
		AR 35A	AR 35B	AR 35D	AR 35G	AR 35J	AR 35K	AR 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 @ $T_c = 150^\circ\text{C}$	$I_{(AV)}$	35							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) at $T_j=150^\circ\text{C}$	I_{FSM}	500							A
Maximum Instantaneous Forward voltage @ 35A	V_F	1.0							V
Maximum DC Reverse Current @ $T_c=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_c=100^\circ\text{C}$	I_R	5.0 250							μA μA
Typical Reverse Recovery Time (Note 2)	T_{rr}	3.0							μS
Typical Junction Capacitance (Note 1) $T_j=25^\circ\text{C}$	C_j	300							pF
Typical Thermal Resistance (Note 3)	$R_{\theta C}$	1.0							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-50 to +175							$^\circ\text{C}$

Notes: 1 Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

2 Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$

3 Thermal Resistance from Junction to Case, Single Side Cooled.

RATINGS AND CHARACTERISTIC CURVES (ARS35 THRU AR35)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

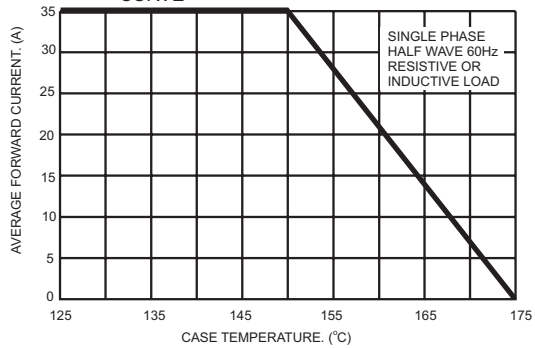


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

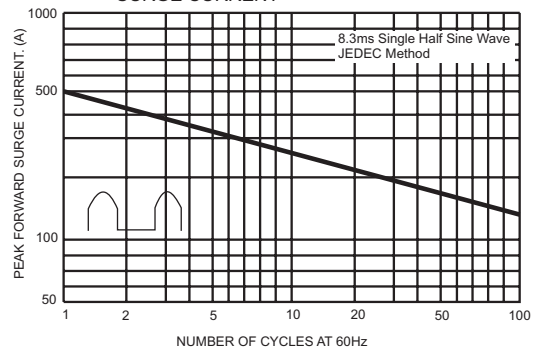


FIG.3- TYPICAL FORWARD CHARACTERISTICS

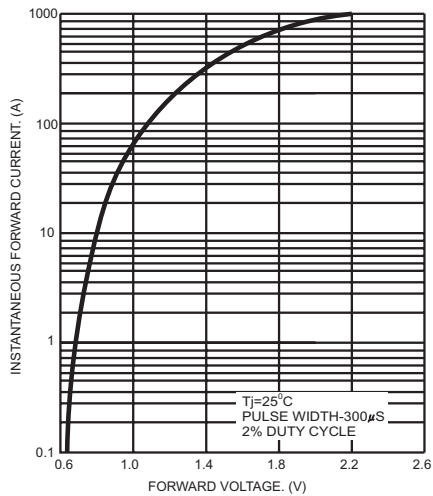


FIG.4- TYPICAL REVERSE CHARACTERISTICS

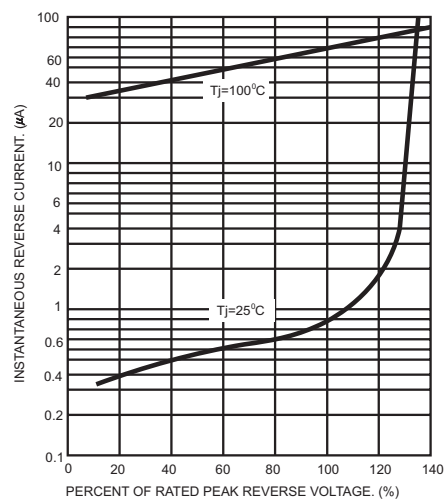


FIG.5- TYPICAL JUNCTION CAPACITANCE

