

AR(S)35 SERIES

35.0 AMPS. High Current Button Rectifiers

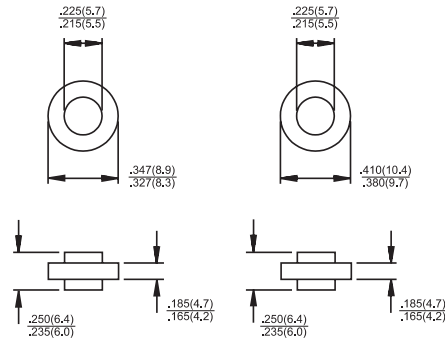
ARS

AR



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: Pure tin plated, lead free., solderable per MIL-STD-202, Method 208
- ✦ Polarity: Color ring denotes cathode
- ✦ 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	Symbol	ARS	ARS	ARS	ARS	ARS	ARS	ARS	Units
		35A	35B	35D	35G	35J	35K	35M	
		AR	AR	AR	AR	AR	AR	AR	
		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 @ $T_c = 150^\circ\text{C}$	$I_{(AV)}$	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 @ $T_c = 125^\circ\text{C}$	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)	$R_{\theta JC}$	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 (AR(S)35 SERIES)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

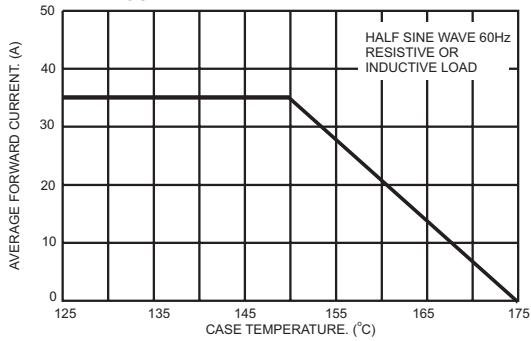


FIG.2- TYPICAL REVERSE CHARACTERISTICS

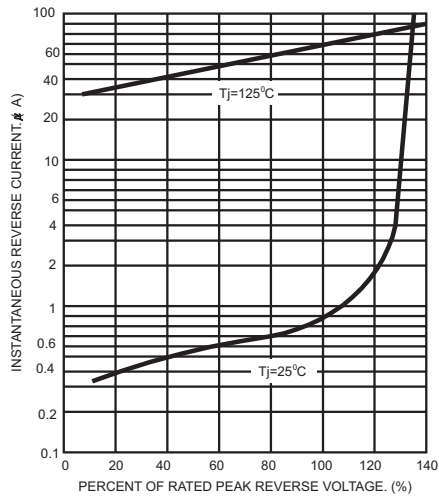


FIG.3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

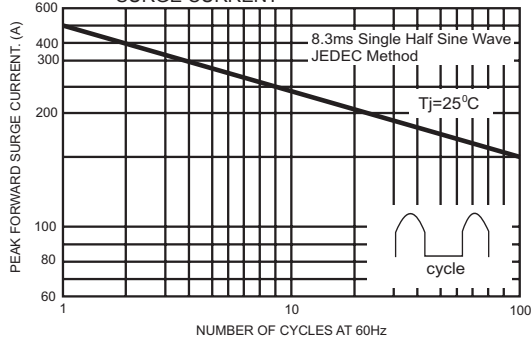


FIG.5- TYPICAL FORWARD CHARACTERISTICS

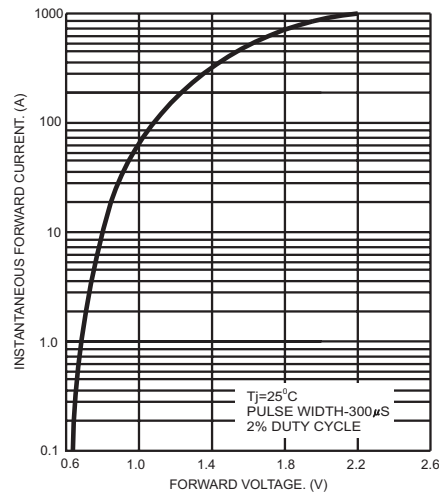


FIG.4- TYPICAL JUNCTION CAPACITANCE

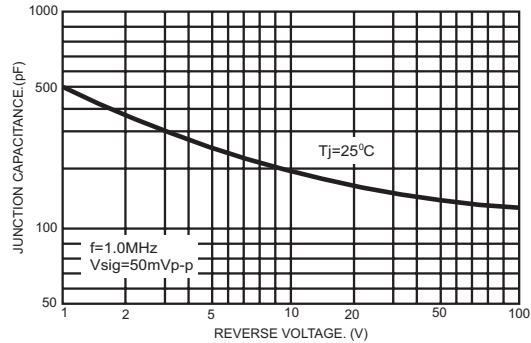


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

