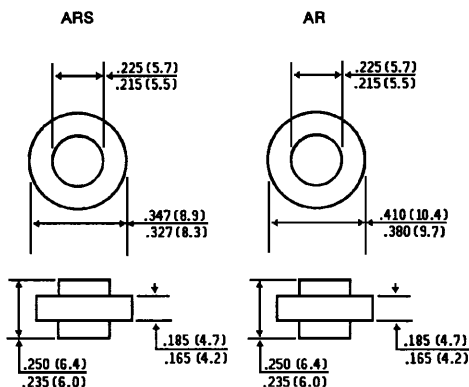


# ARS25 / AR25 SERIES

**HIGH CURRENT PLASTIC SILICON RECTIFIER**  
**VOLTAGE - 50 to 1000 Volts    CURRENT - 25.0 Amperes**

## FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability 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



Dimensions in inches and (millimeters)

## MECHANICAL DATA

**Case:** Transfer, 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 gram

**Mounting Position:** Any

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%.

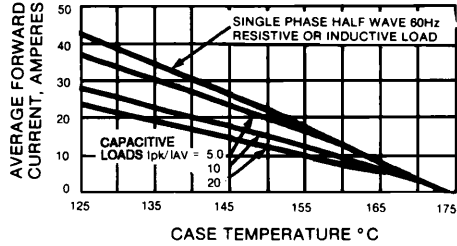
		ARS25A	ARS25B	ARS25D	ARS25G	ARS25J	ARS25K	ARS25M	UNITS
	SYMBOLS	AR25A	AR25B	AR25D	AR25G	AR25J	AR25K	AR25M	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current .375", (4.5mm) lead lengths at T <sub>C</sub> = 150°C	I <sub>(AV)</sub>	25.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at T <sub>J</sub> = 150°C	I <sub>FSM</sub>	400							Amps
Maximum Instantaneous Forward Voltage at 25.0A	V <sub>F</sub>	1.0							Volts
Maximum DC Reverse Current T <sub>C</sub> = 25°C at Rated DC Blocking Voltage T <sub>C</sub> = 100°C	I <sub>R</sub>	250							μA
Typical Reverse Recovery Time (Note 2)	T <sub>RR</sub>	3.0							μs
Typical Junction Capacitance (Note 1) T <sub>J</sub> = 25°C	C <sub>J</sub>	300							pf
Typical Thermal Resistance (Note 3)	R <sub>θJC</sub>	1.0							°C/W
Operating and Storage Temperature Range,	T <sub>J</sub> , T <sub>STG</sub>	-50 to +175							°C
Polarity and Voltage Denotation Color Band		Red	Yellow	Silver	Orange	Green	Blue	Violet	

### NOTES:

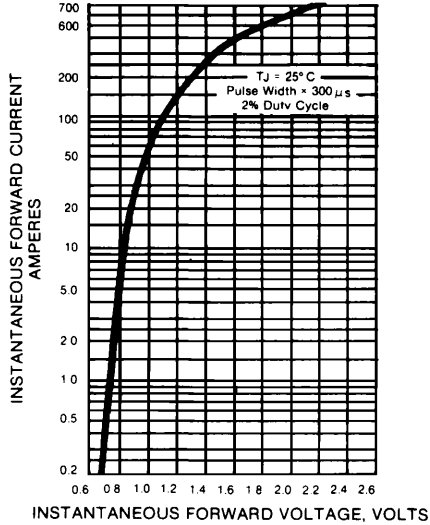
1. Measured at 1.0 MHz and applied reverse voltage of 4.0 V<sub>DC</sub>.
2. Reverse Recovery Test Conditions : I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>rr</sub> = .25A.
3. Thermal Resistance from Junction to Case, single side cooled.

# RATINGS AND CHARACTERISTIC CURVES ARS25 / AR25 SERIES

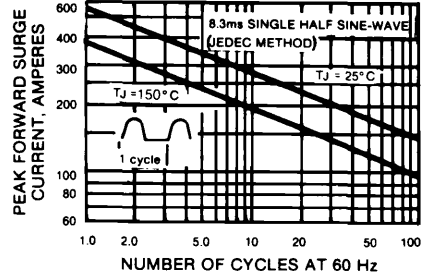
**FIG. 1 — MAXIMUM FORWARD CURRENT DERATING CURVE**



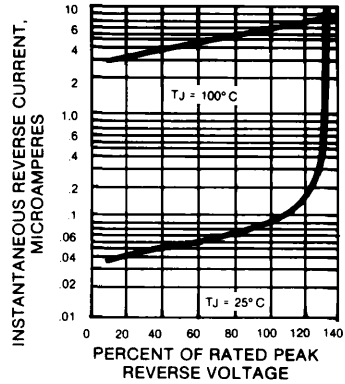
**FIG. 3 — TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



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



**FIG. 4 — TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5 — TYPICAL JUNCTION CAPACITANCE**

