



## BUTTON AUTOMOTIVE RECTIFIER

**AR5005 THRU AR508**  
**ARS5005 THRU ARS508**

**VOLTAGE RANGE** 50 to 600 Volts

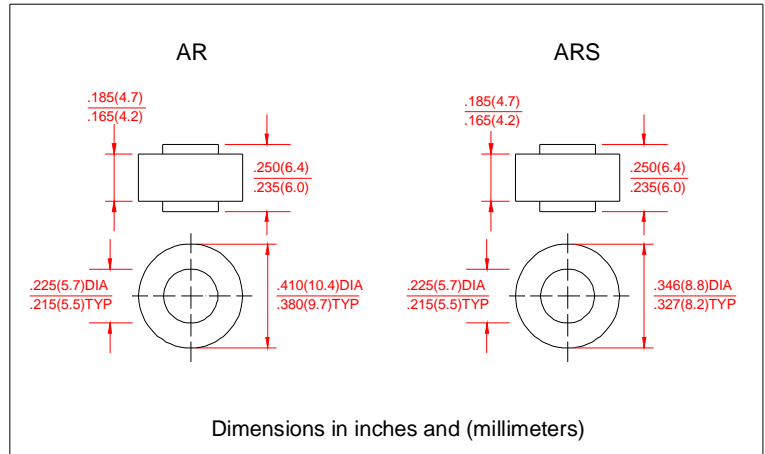
**CURRENT** 50.0 Amperes

### FEATURES

- Low Leakage
- Low forward voltage drop
- High current capability
- High forward surge current capacity

### MECHANICAL DATA

- Case: transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Plated slug , solderable per MIL-STD-202E method 208C
- Polarity: Color ring denotes cathode end
- Mounting Position: any
- Weight: 0.064 ounces, 1.82 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60HZ, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	AR5005 ARS5005	AR501 ARS501	AR502 ARS502	AR504 ARS504	AR506 ARS506	AR508 ARS508	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	Volts
Maximum Average Forward Rectified Current, At $T_c=110^\circ\text{C}$	$I_O$	50.0						Amps
Peak Forward Surge Current 3.3mS single half sine wave superimposed on Rated load (JEDEC method)	$I_{FSM}$	600						Amps
Maximum instantaneous Forward Voltage at 80A	$V_F$	1.08				1.10		Volts
Maximum DC Reverse Current at Rated $T_A=25^\circ\text{C}$ DC Blocking Voltage per element $T_A=100^\circ\text{C}$	$I_R$	5.0						UA
		400						
Typical Thermal Resistance	$R_{\theta JC}$	0.8						$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	(-65 to +175)						$^\circ\text{C}$
Polarity and voltage demotion color band		Red	Yellow	Silver	Green	Green	Blue	

### Notes:

1. Enough heatsink must be considered in application.



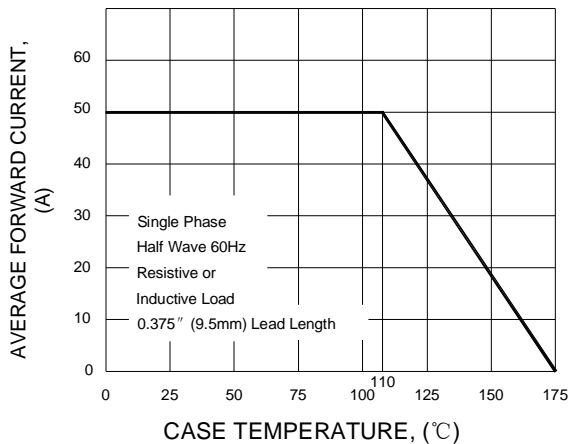
# BUTTON AUTOMOTIVE RECTIFIER

**AR5005 THRU AR508**  
**ARS5005 THRU ARS508**

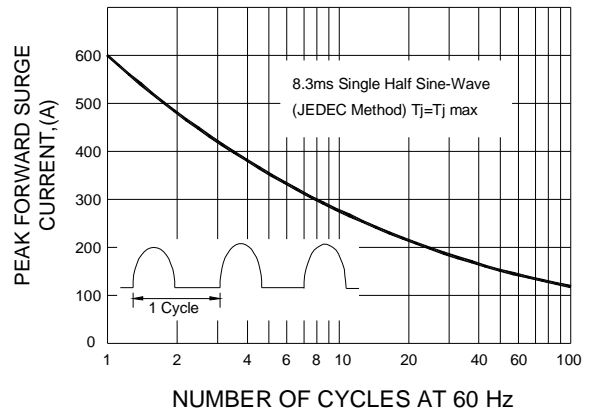
**VOLTAGE RANGE** 50 to 600 Volts  
**CURRENT** 50.0 Amperes

## RATINGS AND CHARACTERISTIC CURVES AR5005 THRU AR508 ARS3505 THRU ARS508

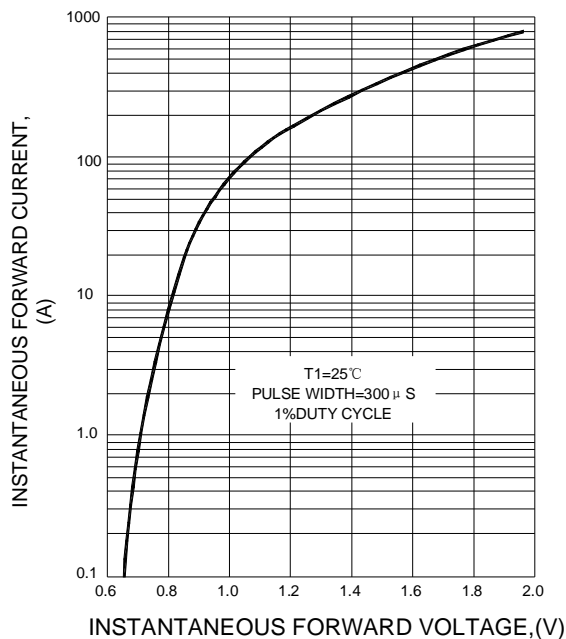
F1G.1 TYPICAL FORWARD CURRENT DERATING CURVE



F1G.2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



F1G.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4 FORWARD POWER DISSIPATION

