



BUTTON AUTOMOTIVE RECTIFIER

AR5005 THRU AR508
ARS5005 THRU ARS508

VOLTAGE RANGE 50 to 600 Volts

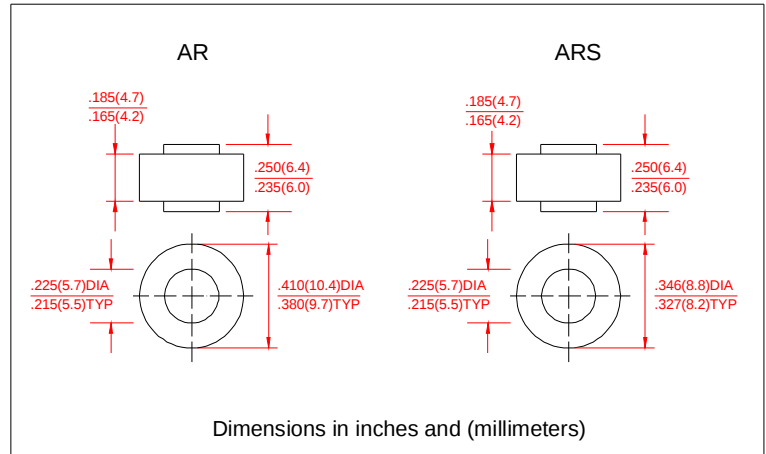
CURRENT 50.0 Amperes

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 Tc=110℃	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 TA=25℃ DC Blocking Voltage per element TA=100℃	I _R	5.0						UA
		400						
Typical Thermal Resistance	R _{θJC}	0.8						℃/W
Operating and Storage Temperature Range	T _J ,T _{STG}	(-65 to +175)						℃
Polarity and voltage demotion color band		Red	Yellow	Silver	Green	Green	Blue	

Notes:

1. Enough heatsink must be considered in application.



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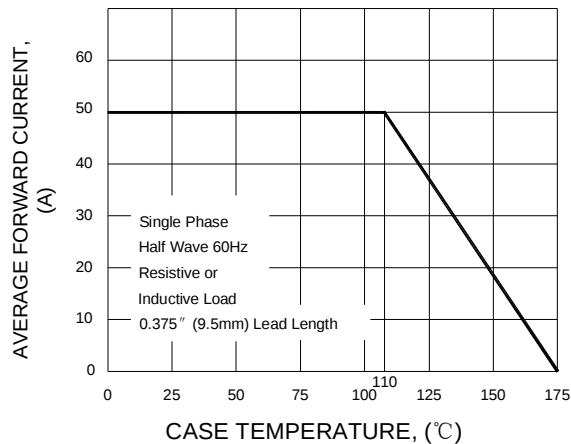
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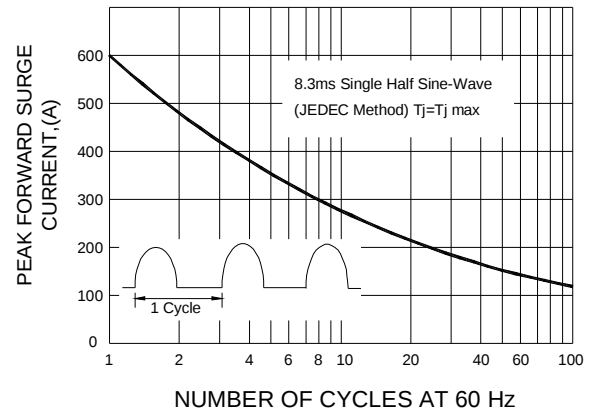
RATINGS AND CHARACTERISTIC CURVES

AR5005 THRU AR508
ARS3505 THRU ARS508

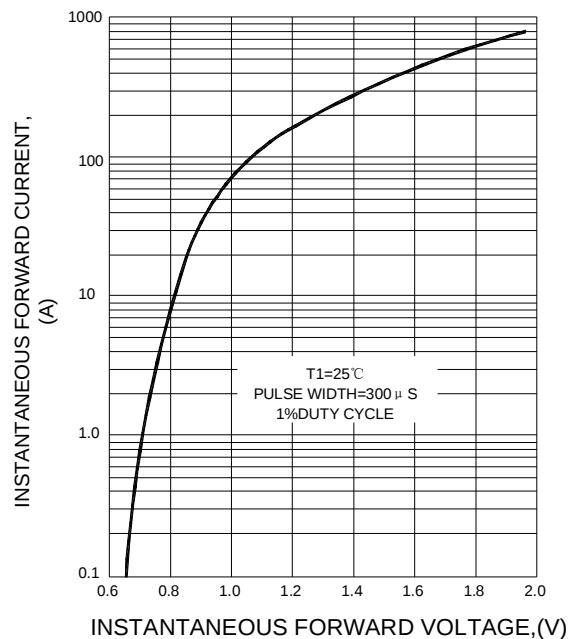
F1G.1 TYPICAL FORWARD CURRENT
DERATING CURVE



F1G.2 MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT



F1G.3 TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS



F1G.4 FORWARD POWER DISSIPATION

