



## BUTTON AUTOMOTIVE RECTIFIER

### ARL1505 THRU ARL156

VOLTAGE RANGE 50 to 600 Volts

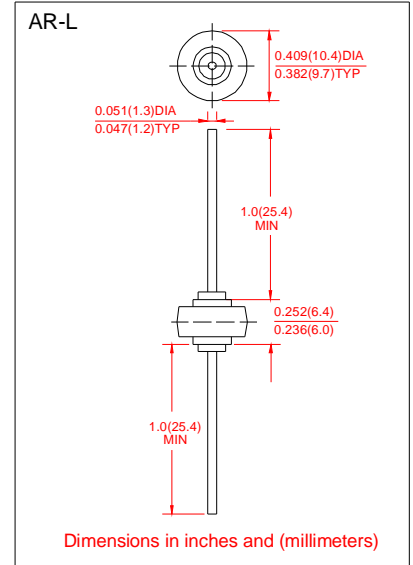
CURRENT 15.0 Amperes

#### FEATURES

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

#### MECHANICAL DATA

- Technology: Cell with vacuum soldered
- Case: transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Plated lead, solderable per MIL-STD-202E method 208C
- Polarity: Color ring denotes cathode end
- Mounting Position: any
- Weight: 0.083 ounces, 2.32 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	ARL1505	ARL151	ARL152	ARL154	ARL156	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	Volts
Maximum Average Forward Rectified Current, At $T_c=110^\circ\text{C}$	$I_O$	15.0					Amps
Peak Forward Surge Current 3.3mS single half sine wave superimposed on Rated load (JEDEC method)	$I_{FSM}$	300					Amps
Rating for fusing ( $t < 8.3\text{ms}$ )	$I^2t$	374					$\text{A}^2\text{S}$
Maximum instantaneous Forward Voltage at 80A	$V_F$	1.1					Volts
Maximum DC Reverse Current at Rated $T_A=25^\circ\text{C}$	$I_R$	5.0					UA
DC Blocking Voltage per element $T_A=100^\circ\text{C}$		250					
Typical Thermal Resistance	$R_{\theta JC}$	1.0					$^\circ\text{C}/\text{W}$
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	

#### Notes:

1. Enough heatsink must be considered in application.



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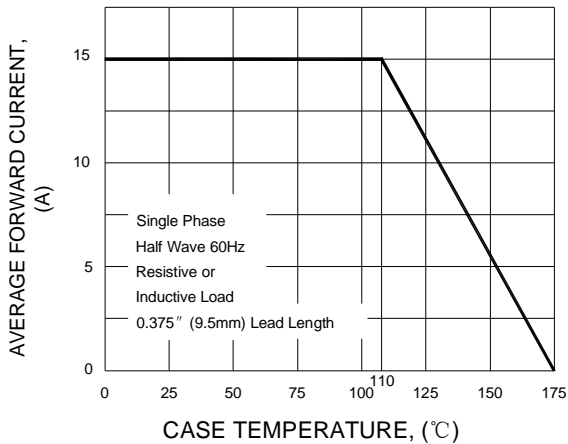
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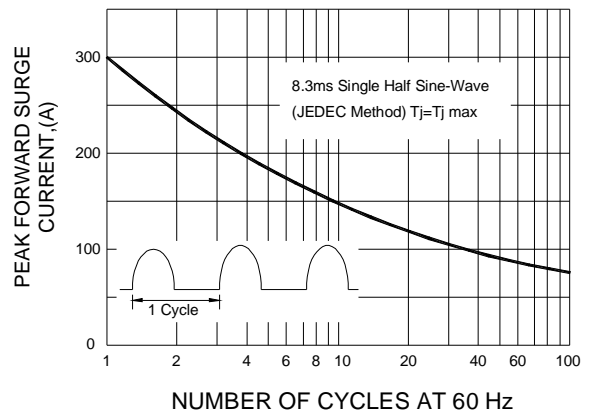
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## RATINGS AND CHARACTERISTIC CURVES ARL1505 THRU ARL156

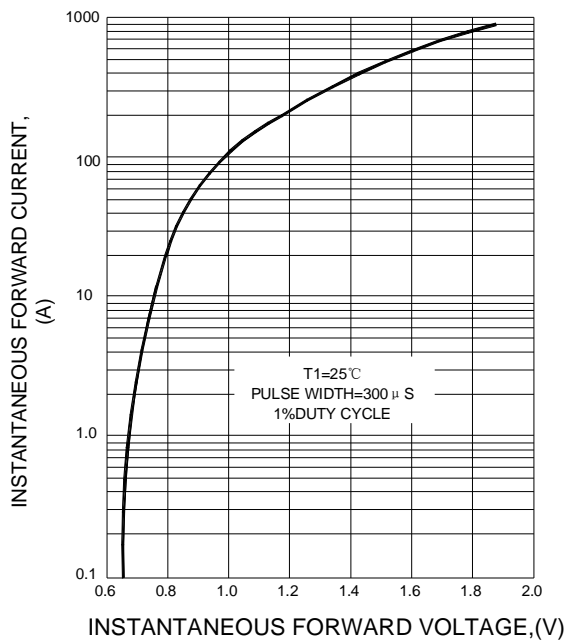
F1G.1 TYPICAL FORWARD CURRENT DERATING CURVE



F1G.2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



F1G.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4 FORWARD POWER DISSIPATION

