



BUTTON AUTOMOTIVE RECTIFIER

ARL2505 THRU ARL256
ARSL2505 THRU ARSL256

VOLTAGE RANGE 50 to 600 Volts

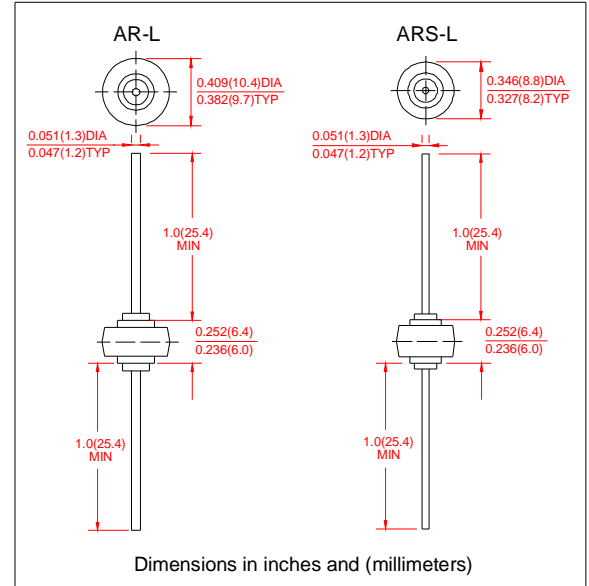
CURRENT 25.0 Amperes

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	ARL2505	ARL251	ARL252	ARL254	ARL256	UNIT
		ARSL2505	ARSL251	ARSL252	ARSL254	ARSL256	
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	25.0					Amps
Peak Forward Surge Current 3.3mS single half sine wave superimposed on Rated load (JEDEC method)	I_{FSM}	400					Amps
Rating for fusing ($t < 8.3\text{ms}$)	I^2t	664					A^2S
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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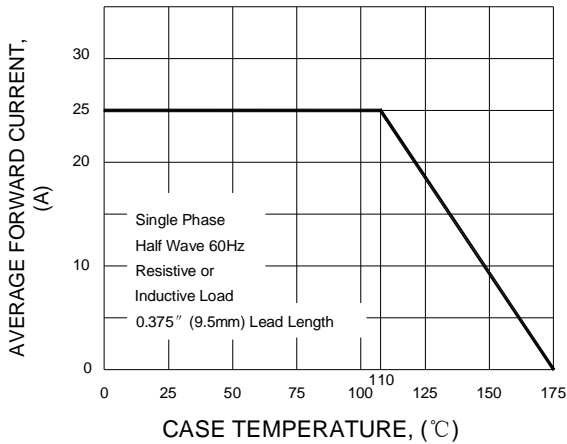
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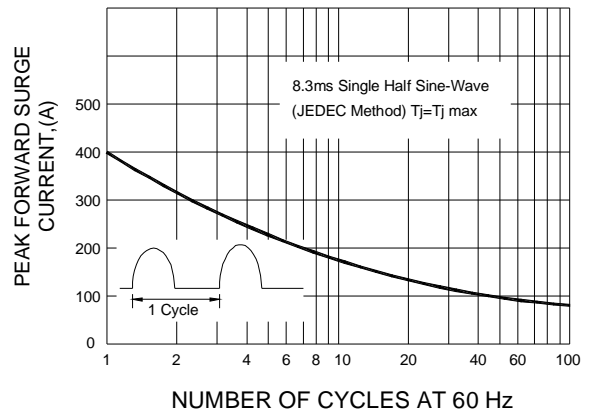
RATINGS AND CHARACTERISTIC CURVES

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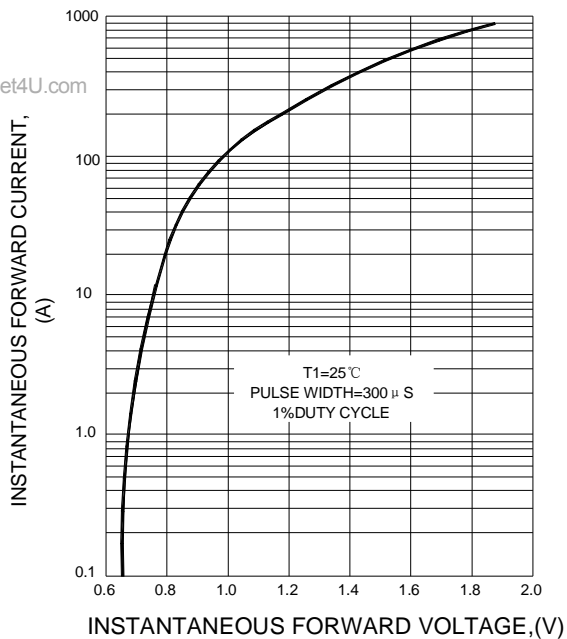
F1G.1 TYPICAL FORWARD CURRENT DERATING CURVE



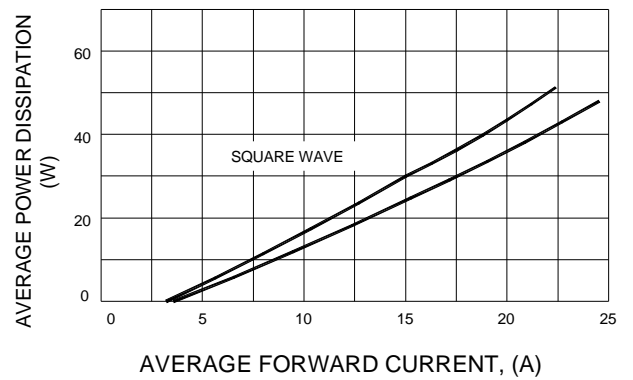
F1G.2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



F1G.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4 FORWARD POWER DISSIPATION



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