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ARL2501/ARSL2501
THRU
ARL2512/ARSL2512

**HIGH VOLTAGE BUTTON
DIODES FOR AUTOMOTIVE**

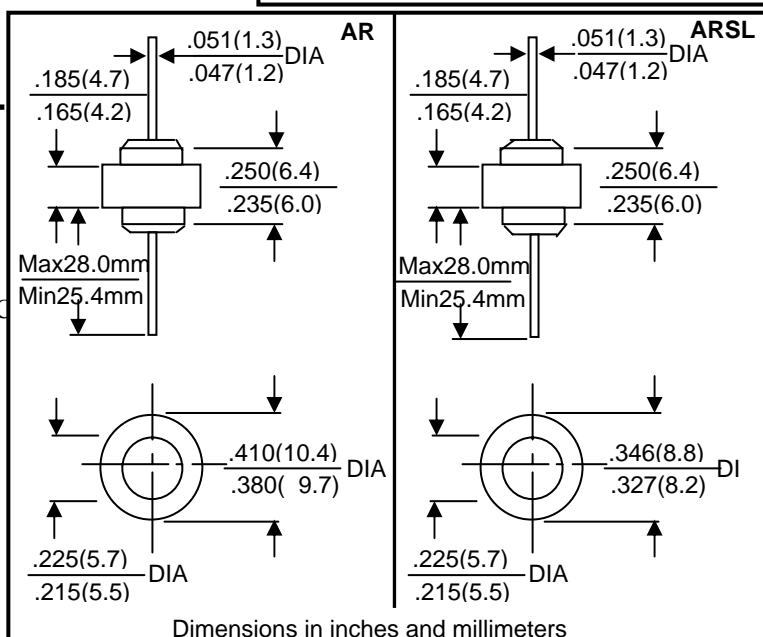
**VOLTAGE RANGE
100 TO 1200 VOLTS
CURRENT 25AMPS**

Features

- Low leakage
- Low forward voltage drop
- High current capability
- High forward surge current capability

Mechanical Data

- Case: transfer molded plastic
- Technology: button with vacuum soldered
- Epoxy: UL94V-0 rate flame retardant
- Polarity: color ring denotes cathode
- Lead: Plated lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: ARL 2.70 grams, ARSL 2.60 grams



Maximum Ratings and Electrical Characteristics

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

Parameters	Symbols	ARL2501 ARSL2501	ARL2502 ARSL2502	ARL2504 ARSL2504	ARL2506 ARSL2506	ARL2508 ARSL2508	ARL2510 ARSL2510	ARL2512 ARSL2512	Units
Maximum repetitive peak reverse voltage	V_{RRM}	100	200	400	600	800	1000	1200	Volts
Maximum RM S voltage	V_{RMS}	70	140	280	420	560	700	840	Volts
Maximum DC blocking voltage	V_{DC}	100	200	400	600	800	1000	1200	Volts
Maximum Average rectified forward current at $T_C=110^\circ\text{C}$	I_o	25							Amps
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (JE DEC Method)	I_{FSM}	300							Amps
Rating for fusing($t<8.3\text{ms}$)	I^2t	374							A^2S
Maximum instantaneous forward voltage drop at 35A	V_F	1.0							Volts
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=150^\circ\text{C}$	I_R	5.0 500							μA
Typical thermal resistance	$R_{\theta JC}$	1.0							$^\circ\text{C/W}$
Operating and storage temperature	T_J, T_{STG}	-65 to +175							$^\circ\text{C}$

Notes: 1. Enough heatsink must be considered in application.

ARL2501 THRU ARL2512 ARSL2501 THRU ARSL2512

Ratings and Characteristic Curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

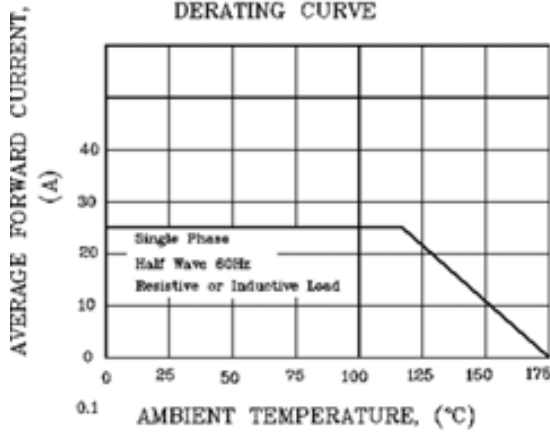


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

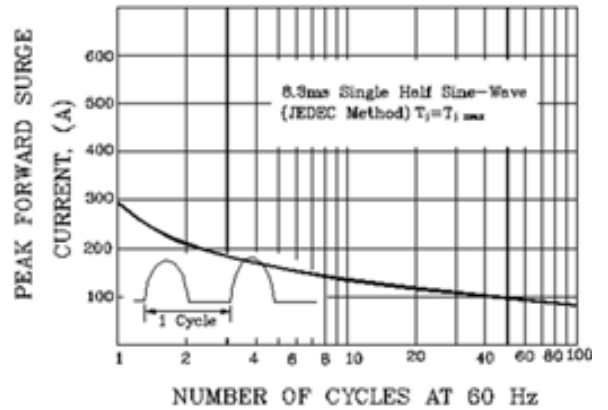


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

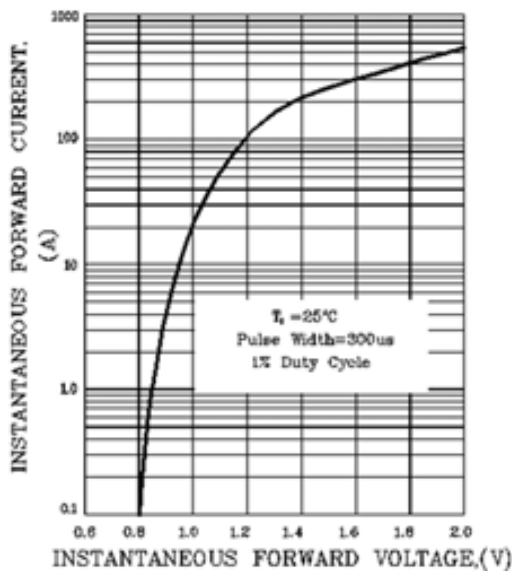


FIG.4- FORWARD POWER DISSIPATION

