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ARL2501F/ARSL2501F  
THRU  
ARL2512F/ARSL2512F

HIGH VOLTAGE BUTTON  
DIODES FOR AUTOMOTIVE

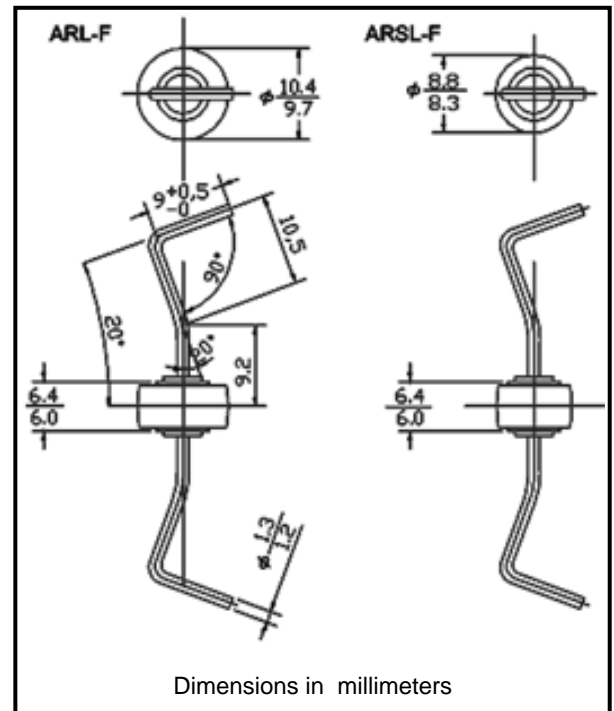
VOLTAGE RANGE  
100 TO 1200 VOLTS  
CURRENT 25AMPS

### 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-F 2.70 grams, ARSL-F 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	ARL2501F ARSL2501F	ARL2502F ARSL2502F	ARL2504F ARSL2504F	ARL2506F ARSL2506F	ARL2508F ARSL2508F	ARL2510F ARSL2510F	ARL2512F ARSL2512F	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 $T_C=110^\circ C$	$I_o$	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( $t<8.3ms$ )	$I^2t$	374							A <sup>2</sup> S
Maximum instantaneous forward voltage drop at 35A	$V_F$	1.0							Volts
Maximum DC reverse current $T_A=25^\circ C$ at rated DC blocking voltage $T_A=150^\circ C$	$I_R$	5.0 500							uA
Typical thermal resistance	$R_{\theta JC}$	1.0							°C/W
Operating and storage temperature	$T_J, T_{STG}$	-65 to +175							°C

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

# ARL2501F THRU ARL2512F ARSL2501F THRU ARSL2512F

## Ratings and Characteristic Curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

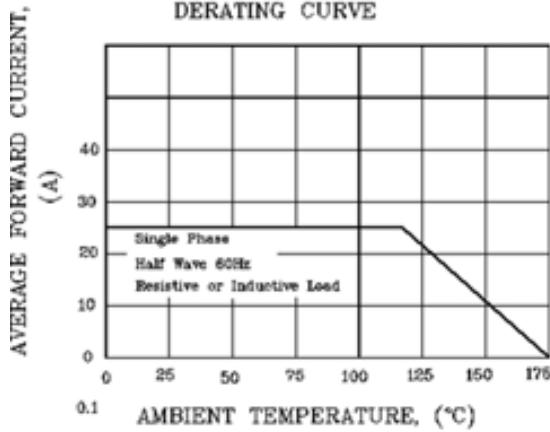


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

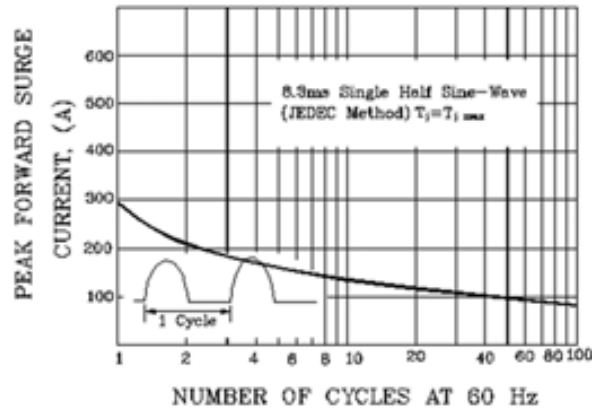


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

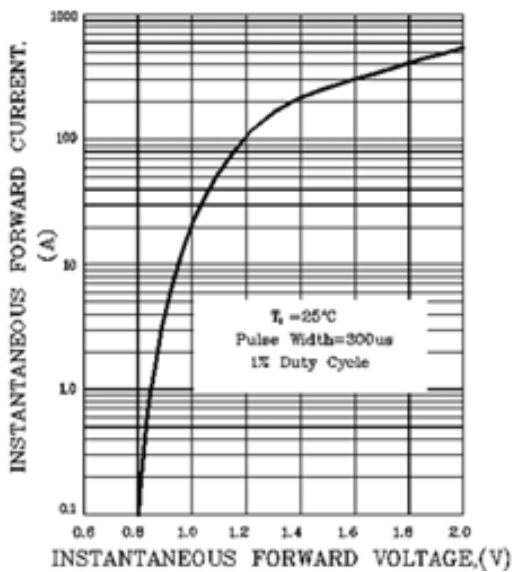


FIG.4- FORWARD POWER DISSIPATION

