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ARL251/ARSL251  
THRU  
ARL256/ARSL256

**BUTTON DIODES**

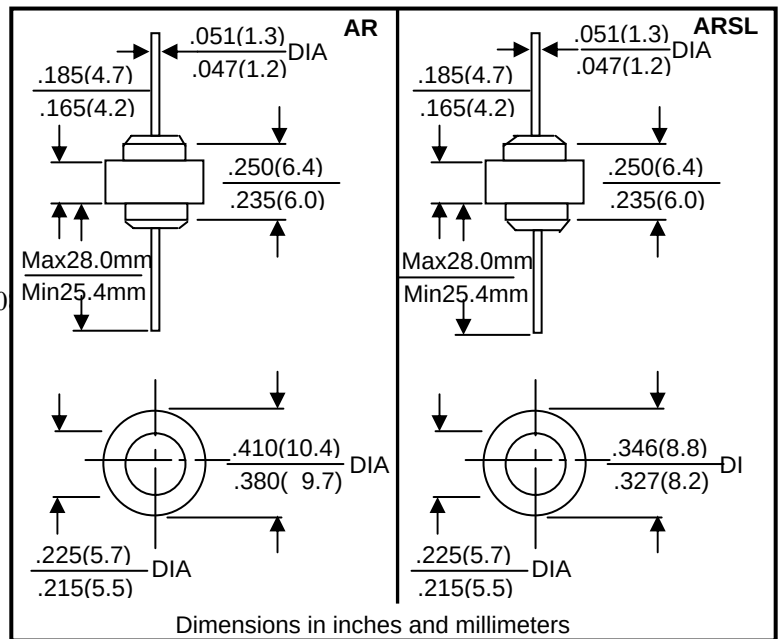
**VOLTAGE RANGE**  
**100 TO 600 VOLTS**  
**CURRENT 25AMPS**

**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 20
- 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         | ARL251<br>ARSL251 | ARL252<br>ARSL252 | ARL253<br>ARSL253 | ARL254<br>ARSL254 | ARL256<br>ARSL256 | Units         |
|---------------------------------------------------------------------------------------------------------|-----------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------|
| Maximum repetitive peak reverse voltage                                                                 | $V_{RRM}$       | 100               | 200               | 300               | 400               | 600               | Volts         |
| Maximum RM S voltage                                                                                    | $V_{RMS}$       | 70                | 140               | 210               | 280               | 420               | Volts         |
| Maximum DC blocking voltage                                                                             | $V_{DC}$        | 100               | 200               | 300               | 400               | 600               | Volts         |
| Maximum Average rectified forward current<br>at $T_C=110^{\circ}C$                                      | $I_o$           | 25                |                   |                   |                   |                   | Amps          |
| Peak forward surge current 8.3mS single<br>half sine-wave superimposed on rated load<br>(JE DEC Method) | $I_{FSM}$       | 400               |                   |                   |                   |                   | Amps          |
| Rating for fusing( $t<8.3ms$ )                                                                          | $I^2t$          | 664               |                   |                   |                   |                   | $A^2S$        |
| Maximum instantaneous forward voltage<br>drop at 100A                                                   | $V_F$           | 1.1               |                   |                   |                   |                   | Volts         |
| Maximum DC reverse current $T_A=25^{\circ}C$<br>at rated DC blocking voltage $T_A=150^{\circ}C$         | $I_R$           | 5.0<br>450        |                   |                   |                   |                   | $\mu A$       |
| Typical thermal resistance                                                                              | $R_{\theta JC}$ | 1.0               |                   |                   |                   |                   | $^{\circ}C/W$ |
| Operating and storage temperature                                                                       | $T_J, T_{STG}$  | -65 to +175       |                   |                   |                   |                   | $^{\circ}C$   |

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

# ARL251 THRU ARL256 ARSL251 THRU ARSL256

## Ratings and Characteristic Curves

FIG.1-TYPICAL FORWARD CURRENT  
DERATING CURVE

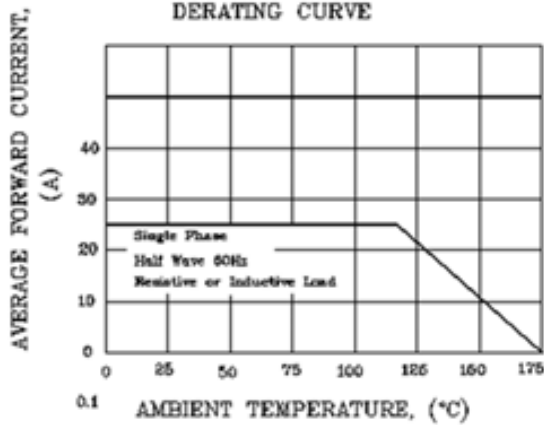


FIG.2-MAXIMUM NON-REPETITIVE PEAK  
FORWARD SURGE CURRENT

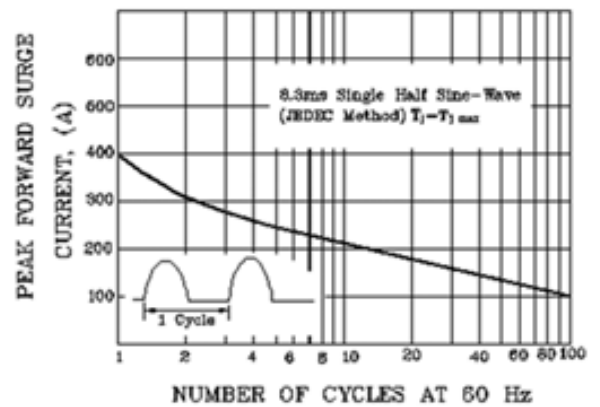


FIG.3-TYPICAL INSTANTANEOUS  
FORWARD CHARACTERISTICS

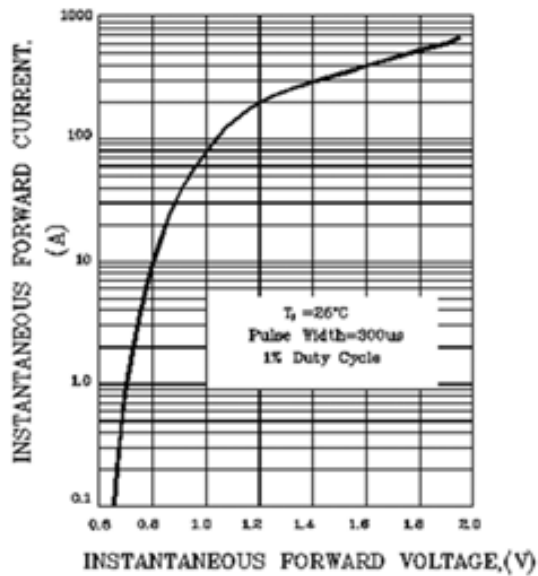


FIG.4- FORWARD POWER DISSIPATION

