



## BUTTON AUTOMOTIVE RECTIFIER

**FARL2505 THRU FARL256**  
**FARSL2505 THRU FARSL256**

**VOLTAGE RANGE** 50 to 600 Volts

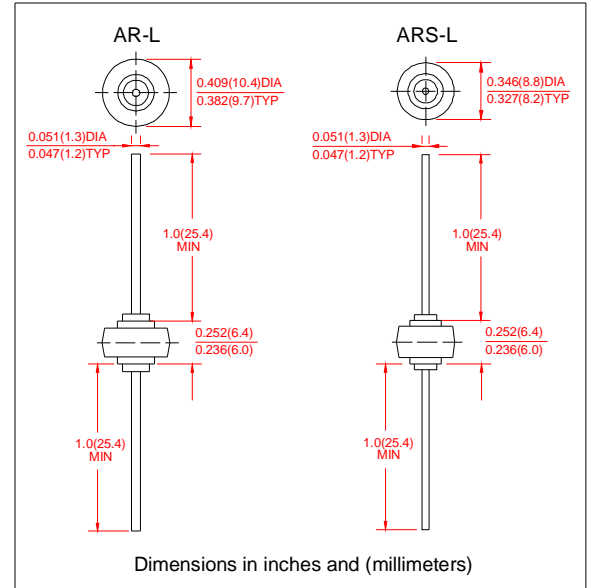
**CURRENT** 25.0 Amperes

### FEATURES

- Low Leakage
- Low forward voltage drop
- High current capability
- High forward surge current capacity
- Fast switching for high efficiency

### 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         | FARL2505<br>FARSL2505 | FARL251<br>FARSL251 | FARL252<br>FARSL252 | FARL254<br>FARSL254 | FARL256<br>FARSL256 | 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,<br>At $T_c=110^\circ\text{C}$  | $I_O$           | 25.0                  |                     |                     |                     |                     | Amps                      |
| Peak Forward Surge Current<br>3.3ms single half sine wave superimposed on<br>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  | $V_F$           | 1.15                  |                     |                     |                     | 1.30                | Volts                     |
| Maximum DC Reverse Current at Rated $T_A=25^\circ\text{C}$<br>DC Blocking Voltage per element $T_A=100^\circ\text{C}$ | $I_R$           | 10                    |                     |                     |                     |                     | UA                        |
|   |                 | 100                   |                     |                     |                     |                     |                           |
| Maximum Reverse Recovery Time<br>Test conditions $I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{RR}=0.25\text{A}$        | $t_{rr}$        | 150                   |                     |                     |                     | 200                 | nS                        |
| 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.

E-mail: [sales@cnmic.com](mailto:sales@cnmic.com) Web Site: [www.cnmic.com](http://www.cnmic.com)

**www.BDTIC.com/MIC**



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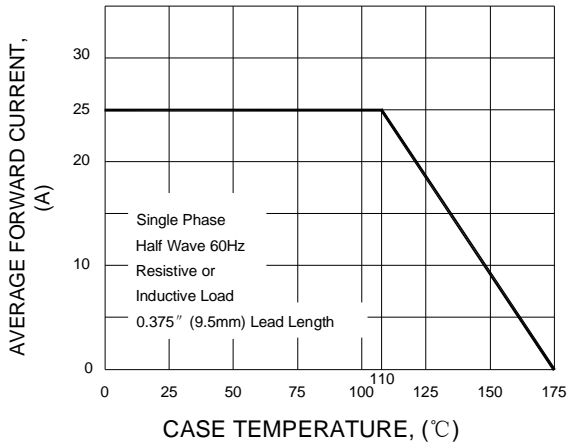
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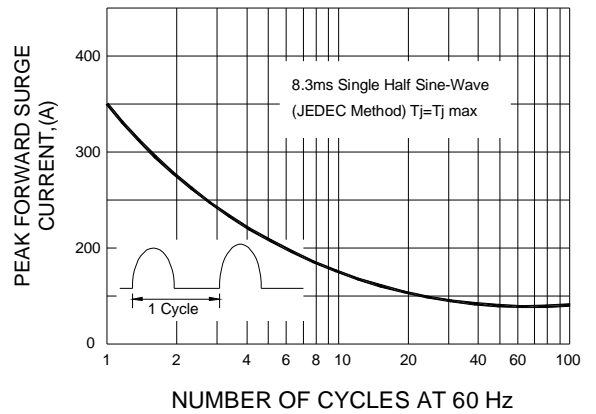
## RATINGS AND CHARACTERISTIC CURVES

**FARL2505 THRU FARL256**  
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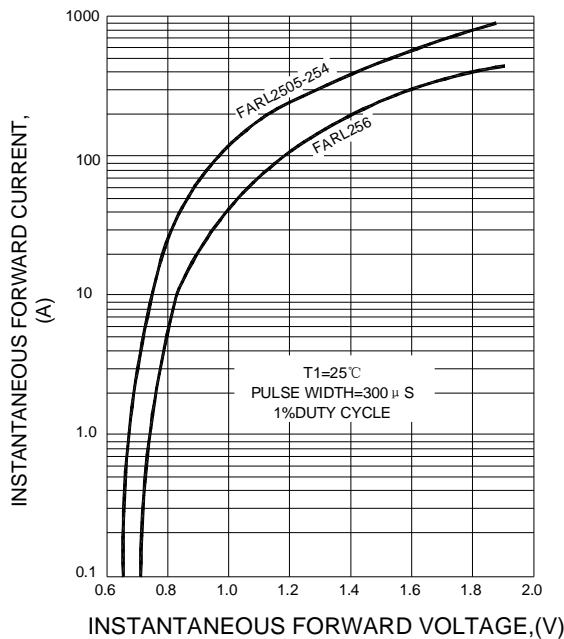
F1G.1 TYPICAL FORWARD CURRENT DERATING CURVE



F1G.2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



F1G.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4 FORWARD POWER DISSIPATION

