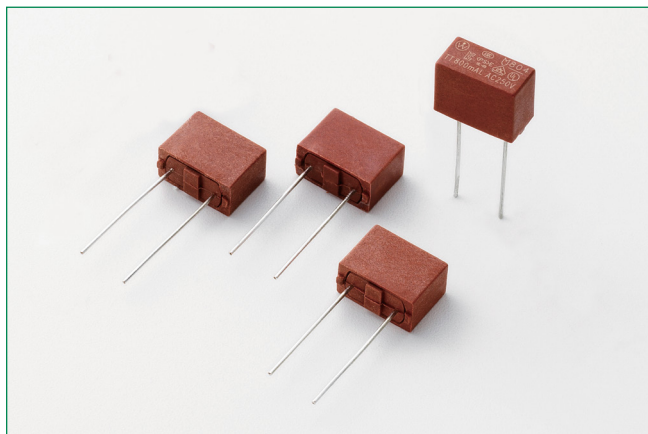


# 804 Series

## Time-Lag Fuse



### Additional Information



Resources



Accessories



Samples

### Electrical Characteristics

| % of Ampere Rating | Opening Time                                            |
|--------------------|---------------------------------------------------------|
| 125%               | 3600 sec <b>Minimum</b>                                 |
| 200%               | 120 sec <b>Maximum</b>                                  |
| 1000%              | 100 milliseconds <b>Minimum</b><br>1 sec <b>Maximum</b> |

### Description

The 804 Series is a TE Universal Modular Fuse (UMF), TT time-lag type subminiature fuse designed for overcurrent protection. It is 250V rated and designed in accordance to IEC 60127-4.

### Features & Benefits

- Lead-free, Halogen-free and RoHS compliant.
- Reduced PCB space requirements
- Direct solderable or plug-in versions
- Low internal resistance
- Shock safe casing
- Vibration resistant
- Excellent surge tolerance due to high i<sup>2</sup>t values
- Listed to IEC 60127-1 and IEC 60127-4
- Approved to EN 60127-1 and EN 60127-7
- Approved to GB 9364.1 and GB 9364.4
- Approved to J60127-1 and J60127-4
- Approved to K60127-1 and K60127-4

### Applications

- Battery Charger
- Consumer Electronics
- Power Supplies
- Industrial Controllers

### Agency Approvals

| Agency | Agency File Number                                          | Ampere Range                      |
|--------|-------------------------------------------------------------|-----------------------------------|
| UL M   | E242325                                                     | 0.8A – 6.3A                       |
| DVE    | 40029388                                                    | 0.8A – 6.3A                       |
| CEC    | CQC10012048703                                              | 0.8A - 6.3A                       |
| PS E   | NBK180518-JP1021A<br>NBK180518-JP1021B<br>NBK180518-JP1021C | 1A – 2.5A<br>3.15A – 5A<br>6.3A   |
| UKCA   | SU05024-10005<br>SU05024-10004<br>SU05024-10006             | 0.8A<br>1A - 2.5A<br>3.15A - 6.3A |
| CE     | NA                                                          | 0.8A – 6.3A                       |
|        | NA                                                          | 0.8A – 6.3A                       |

### Electrical Characteristics

| Amp Code | Ampere Rating | Rated Voltage | Interrupting Rating | Nominal Cold Resistance (Ohms) | Voltage Drop 1.0xI <sub>N</sub> max [mV] | Power Dissipation 1.25xI <sub>N</sub> max [mW] | Melting Integral 10xI <sub>N</sub> max [A <sup>2</sup> s] | Agency Approvals |      |    |   |     |     |      |
|----------|---------------|---------------|---------------------|--------------------------------|------------------------------------------|------------------------------------------------|-----------------------------------------------------------|------------------|------|----|---|-----|-----|------|
|          |               |               |                     |                                |                                          |                                                |                                                           | CE               | UKCA | UL | M | DVE | CEC | PS E |
| 0800     | 0.80A         | 250V          | 150A @250VAC        | 0.1887                         | 218                                      | 332                                            | 12.480                                                    | x                | x    | x  | x | x   | x   | -    |
| 1100     | 1.00A         | 250V          |                     | 0.1166                         | 171                                      | 324                                            | 20.000                                                    | x                | x    | x  | x | x   | x   | x    |
| 1125     | 1.25A         | 250V          |                     | 0.0816                         | 151                                      | 352                                            | 30.00                                                     | x                | x    | x  | x | x   | x   | x    |
| 1160     | 1.60A         | 250V          |                     | 0.0569                         | 135                                      | 464                                            | 51.00                                                     | x                | x    | x  | x | x   | x   | x    |
| 1200     | 2.00A         | 250V          |                     | 0.0458                         | 183                                      | 486                                            | 88.00                                                     | x                | x    | x  | x | x   | x   | x    |
| 1250     | 2.50A         | 250V          |                     | 0.0349                         | 118                                      | 675                                            | 137.50                                                    | x                | x    | x  | x | x   | x   | x    |
| 1315     | 3.15A         | 250V          |                     | 0.0228                         | 163                                      | 818                                            | 212.94                                                    | x                | x    | x  | x | x   | x   | x    |
| 1400     | 4.00A         | 250V          |                     | 0.0174                         | 128                                      | 945                                            | 368.00                                                    | x                | x    | x  | x | x   | x   | x    |
| 1500     | 5.00A         | 250V          |                     | 0.0138                         | 98                                       | 1091                                           | 748.00                                                    | x                | x    | x  | x | x   | x   | x    |
| 1630     | 6.30A         | 250V          |                     | 0.0100                         | 78                                       | 1125                                           | 1099.00                                                   | x                | x    | x  | x | x   | x   | x    |

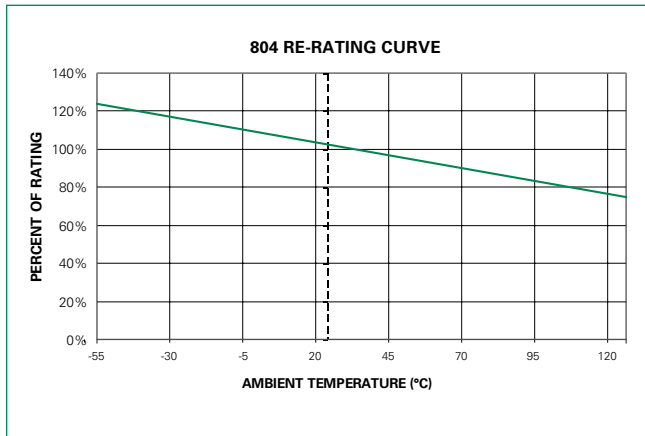
Note:

1. Resistance is measured at 10% of rated current, 25°C.

# 804 Series

## Time-Lag Fuse

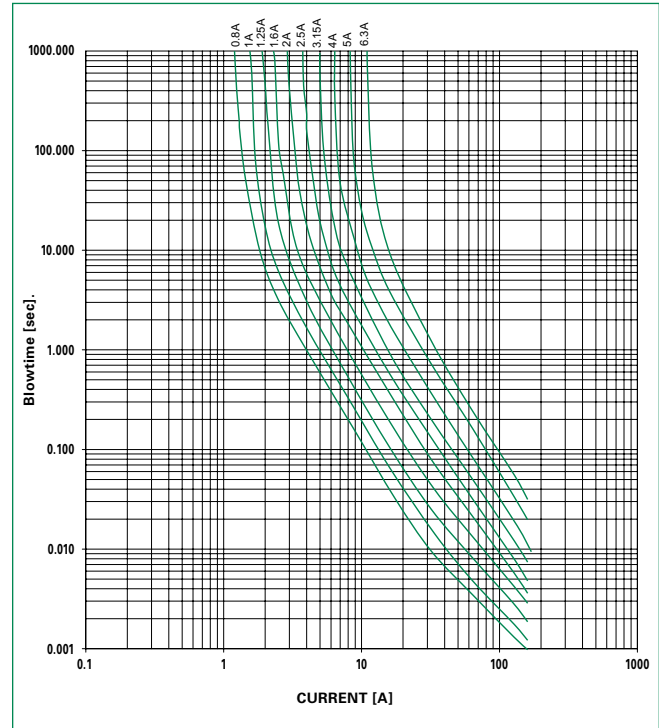
### Temperature Re-rating Curve



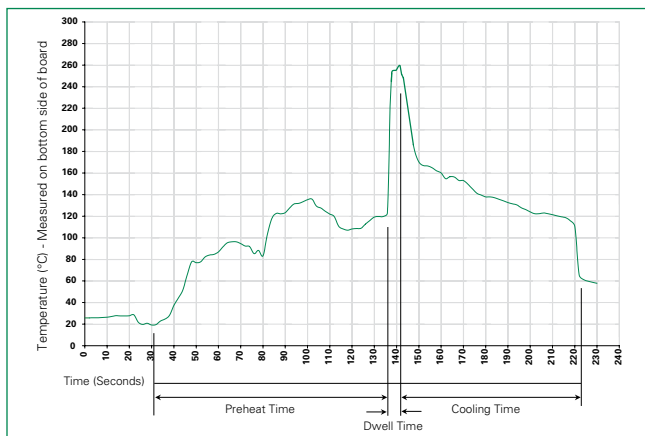
**Note:**

1. Derating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

### Average Time Current Curves



### Soldering Parameters - Wave Soldering



### Recommended Process Parameters:

| Wave Parameter                                       | Lead-Free Recommendation          |
|------------------------------------------------------|-----------------------------------|
| Preheat:<br>(Depends on Flux Activation Temperature) | (Typical Industry Recommendation) |
| Temperature Minimum:                                 | 100°C                             |
| Temperature Maximum:                                 | 150°C                             |
| Preheat Time:                                        | 60-180 seconds                    |
| Solder Pot Temperature:                              | 260°C Maximum                     |
| Solder Dwell Time:                                   | 2-5 seconds                       |

### Recommended Hand-Solder Parameters:

Solder Iron Temperature: 350°C +/- 5°C  
Heating Time: 5 seconds max.

**Note:** These devices are not recommended for IR or Convection Reflow process.

# 804 Series

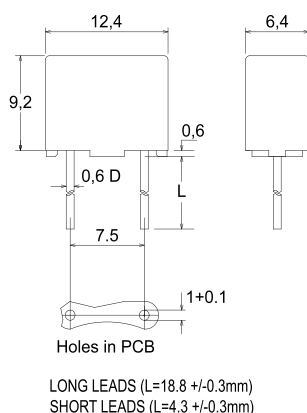
## Time-Lag Fuse

### Product Characteristics

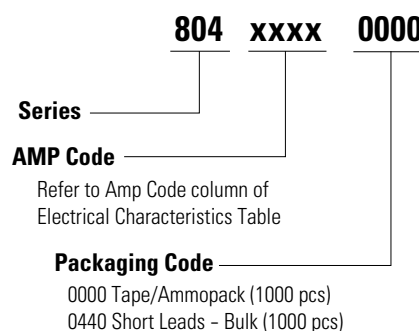
|                                  |                                                                                    |
|----------------------------------|------------------------------------------------------------------------------------|
| <b>Materials</b>                 | Base/Cap: Brown Thermoplastic Polyamide, UL 94V-0<br>Round Pins: Copper, Sn Plated |
| <b>Lead Pull Strength</b>        | 10 N (IEC 60068-2-21)                                                              |
| <b>Solderability</b>             | 260°C, ≤ 3s. (Wave)<br>350°C, ≤ 1s. (Soldering Iron)                               |
| <b>Soldering Heat Resistance</b> | 260°C, 10s. (IEC 60068-2-20)<br>350°C, 3s. (Soldering Iron)                        |

|                              |                                                                                                               |
|------------------------------|---------------------------------------------------------------------------------------------------------------|
| <b>Operating Temperature</b> | -40°C to +125°C (Consider re-rating)                                                                          |
| <b>Climatic Category</b>     | -40°C/+85°C/21 days<br>(IEC 60068-1, -2-1, -2-2, -2-78)                                                       |
| <b>Stock Conditions</b>      | +10°C to +60°C<br>relative humidity 75% yearly average, without dew, maximum value for 30 days – 95%          |
| <b>Vibration Resistance</b>  | 24 cycles at 15 min. each (IEC 60068-2-6)<br>10 – 60Hz at 0.75mm amplitude<br>20 – 2000Hz at 10g acceleration |

### Dimensions (mm)



### Part Numbering System



### Packaging

| Packaging Option | Packaging Specification | Quantity | Quantity & Packaging Code | Reel Size |
|------------------|-------------------------|----------|---------------------------|-----------|
| Tape & Ammopack  | N/A                     | 1,000    | 0000                      | N/A       |
| Short Leads      | N/A                     | 1,000    | 0440                      | N/A       |