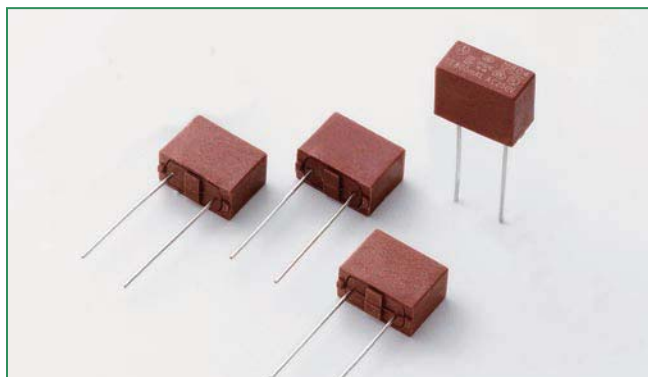


### RoHS **804 Series Fuse, TE, Time-Lag Fuse**



#### Agency Approvals

| Agency                                                                              | Agency File Number     | Ampere Range        |
|-------------------------------------------------------------------------------------|------------------------|---------------------|
|    | E242325                | 800mA – 6.3A        |
|    | DE1-42667              | 800mA, 1.25A – 6.3A |
|    | CQC10012048703         | 800mA, 1.25A – 6.3A |
|   | NBK060111-JP1021A      | 1A – 2.5A           |
|  | NBK060111-JP1021B      | 3.15A – 5A          |
|  | NBK060111-JP1021C      | 6.3A                |
|  | SU05024-10004 to 10005 | 800mA – 6.3A        |

#### Description

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

#### Features

- Lead-free and RoHS Compliant
- Reduced PCB space requirements
- Direct solderable or plug-in versions
- Low internal resistance
- Internally approved
- Shock safe casing
- Vibration resistant
- Halogen Free

#### Applications

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

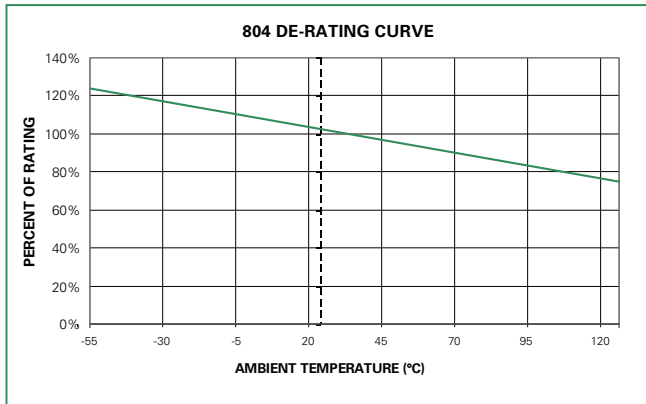
#### Electrical Characteristics

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

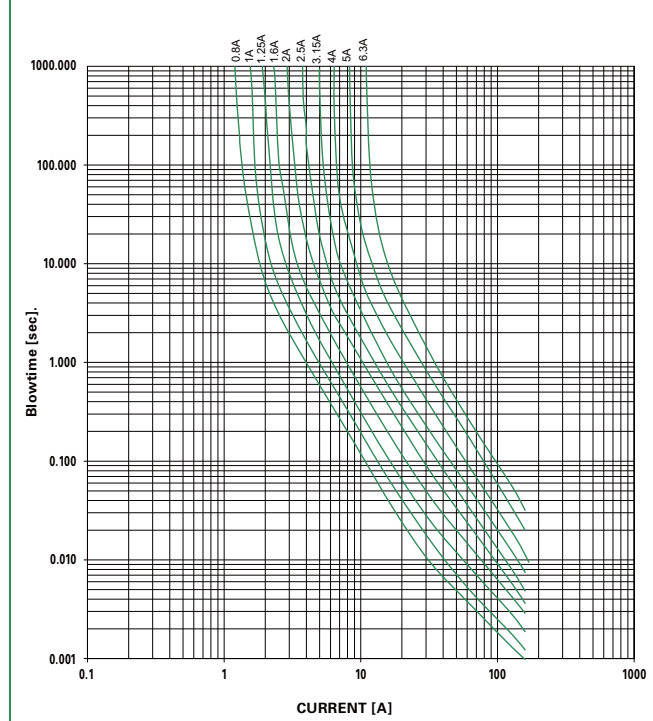
#### Electrical Characteristics

| Amp Code | Ampere Rating | Rated Voltage | Interrupting Rating<br>50-60Hz/<br>cos = 1 | Voltage Drop<br>$1.0 \times I_N$<br>max [mV] | Power Dissipation<br>$1.25 \times I_N$<br>max [mW] | Melting Integral<br>$10 \times I_N$<br>min [A <sup>2</sup> s] | Agency Approvals                                                                      |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|----------|---------------|---------------|--------------------------------------------|----------------------------------------------|----------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|          |               |               |                                            |                                              |                                                    |                                                               |  |  |  |  |  |
| 0800     | 800mA         | 250V          | 150A/250VAC                                | 218                                          | 332                                                | 12                                                            | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     |
| 1100     | 1.00A         | 250V          | 150A/250VAC                                | 171                                          | 324                                                | 20                                                            | x                                                                                     | x                                                                                     |                                                                                       |                                                                                       | x                                                                                     |
| 1125     | 1.25A         | 250V          | 150A/250VAC                                | 151                                          | 352                                                | 30                                                            | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     |
| 1160     | 1.60A         | 250V          | 150A/250VAC                                | 135                                          | 464                                                | 51                                                            | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     |
| 1200     | 2.00A         | 250V          | 150A/250VAC                                | 183                                          | 486                                                | 80                                                            | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     |
| 1250     | 2.50A         | 250V          | 150A/250VAC                                | 118                                          | 675                                                | 136                                                           | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     |
| 1315     | 3.15A         | 250V          | 150A/250VAC                                | 163                                          | 818                                                | 189                                                           | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     |
| 1400     | 4.00A         | 250V          | 150A/250VAC                                | 128                                          | 945                                                | 346                                                           | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     |
| 1500     | 5.00A         | 250V          | 150A/250VAC                                | 98                                           | 1091                                               | 748                                                           | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     |
| 1630     | 6.30A         | 250V          | 150A/250VAC                                | 78                                           | 1125                                               | 1099                                                          | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     |

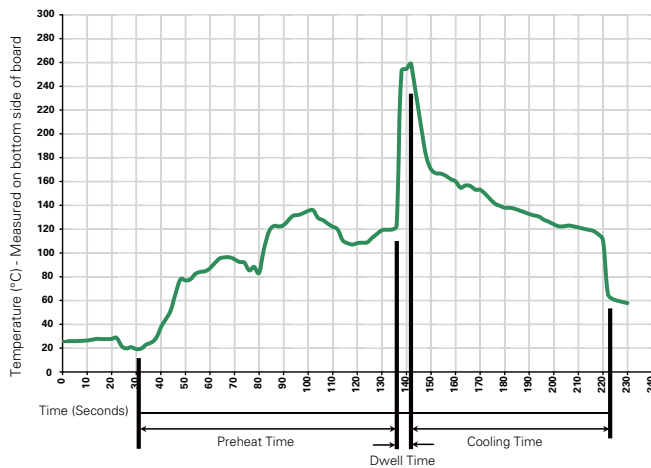
## Temperature Derating Curve



## Average Time Current Curves



## Soldering Parameters - Wave Soldering



### Recommended Process Parameters:

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

### Recommended Hand-Solder Parameters:

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

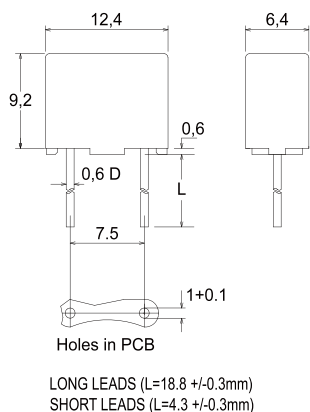
**Note:** These devices are not recommended for IR or Convection Reflow process.

### Product Characteristics

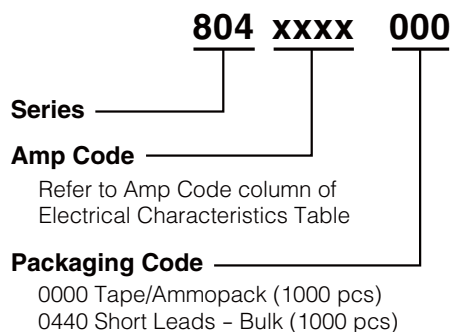
|                                  |                                                                                                                   |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Materials</b>                 | Base/Cap: Black Thermoplastic<br>Polyamide, UL 94V-0<br>Brass, Nickel-plated Cap<br>Round Pins: Copper, Sn Plated |
| <b>Lead Pull Strength</b>        | 10 N (EN 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 de-rating)                                                                         |
| <b>Climatic Category</b>     | -40°C/+85°C/21 days<br>(EN 60068-1, -2-1, -2-2, -2-78)                                                       |
| <b>Stock Conditions</b>      | +10°C to +60°C<br>relative humidity 75% yearly<br>average, without dew, maximum<br>value for 30 days – 95%   |
| <b>Vibration Resistance</b>  | 24 cycles at 15 min. each (EN60028-2-6)<br>10 - 60Hz at 0.75 mm amplitude<br>20 – 2000Hz at 10g acceleration |

### Dimensions



### Part Numbering System



### Packaging

| Packaging Option  | Packaging Specification | Quantity | Quantity & Packaging Code | Reel Size |
|-------------------|-------------------------|----------|---------------------------|-----------|
| <b>804 Series</b> |                         |          |                           |           |
| Tape & Ammopack   | N/A                     | 1,000    | 000                       | N/A       |
| Short Leads       | N/A                     | 1,000    | 044                       | N/A       |