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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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# Radial Lead Fuses

TR3 > Fast-Acting Fuse > 303 Series

## 303 Series, TR3, Fast-Acting Fuse



### Agency Approvals

Agency	Agency File Number	Ampere Range
	E67006	0.050A - 5A
	051378	0.050A - 5A

### Electrical Characteristics

% of Ampere Rating	Opening Time
200	60 Seconds, Maximum

### Description

The 303 Series are TR3, fast-acting type, 125V rated fuses designed in accordance to UL 248-14.

### Features

- Reduced PCB space requirements
- Direct solderable or plug-in versions
- Internationally approved
- Low internal resistance
- Shock safe casing
- Vibration resistant
- RoHS compliant, Lead-Free and Halogen-Free
- Available from 0.050A to 5A

### Applications

- Battery chargers
- Consumer electronics
- Power supplies
- Industrial controllers

### Additional Information



Datasheet



Resources



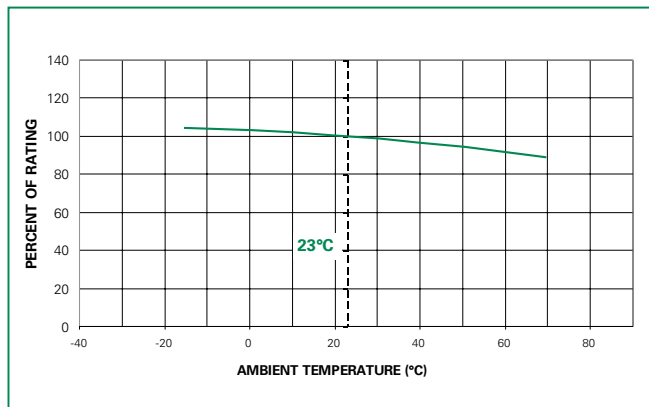
Samples

### Electrical Characteristics

Amp Code	Rated Current	Voltage Rating	Breaking Capacity	Nominal Cold Resistance (Ohms)	Voltage Drop 1.0xI <sub>N</sub> max. (mV)	Power Dissipation 1.0xI <sub>N</sub> max. (mW)	Melting Integral 10xI <sub>N</sub> max. (A <sup>2</sup> s)	Approvals	
0050	50mA	125V	50A @ 125VAC 50A @ 63VDC	2.9203	800	40	0.00007	X	X
0063	63mA	125V		2.7400	780	50	0.00013	X	X
0080	80mA	125V		2.2300	730	60	0.0002	X	X
0100	100mA	125V		4.3800	700	70	0.0004	X	X
0125	125mA	125V		3.4605	650	85	0.0022	X	X
0160	160mA	125V		2.1687	600	100	0.0029	X	X
0200	200mA	125V		1.3500	550	110	0.0042	X	X
0250	250mA	125V		1.1500	500	125	0.0082	X	X
0315	315mA	125V		0.9645	450	145	0.015	X	X
0400	400mA	125V		0.8050	400	160	0.025	X	X
0500	500mA	125V		0.5320	380	190	0.042	X	X
0630	630mA	125V		0.1448	160	100	0.015	X	X
0800	800mA	125V		0.1023	155	125	0.025	X	X
1100	1.00A	125V		0.0830	150	155	0.039	X	X
1125	1.25A	125V		0.0644	145	185	0.059	X	X
1160	1.60A	125V		0.0520	140	225	0.11	X	X
1200	2.00A	125V		0.0400	130	260	0.17	X	X
1250	2.50A	125V		0.0307	125	315	0.23	X	X
1315	3.15A	125V		0.0262	120	380	0.45	X	X
1400	4.00A	125V		0.0178	110	440	1.0	X	X
1500	5.00A	125V		0.0131	105	525	1.5	X	X

Note: 1.00 means the number one with two decimal places. 1,000 means the number one thousand.

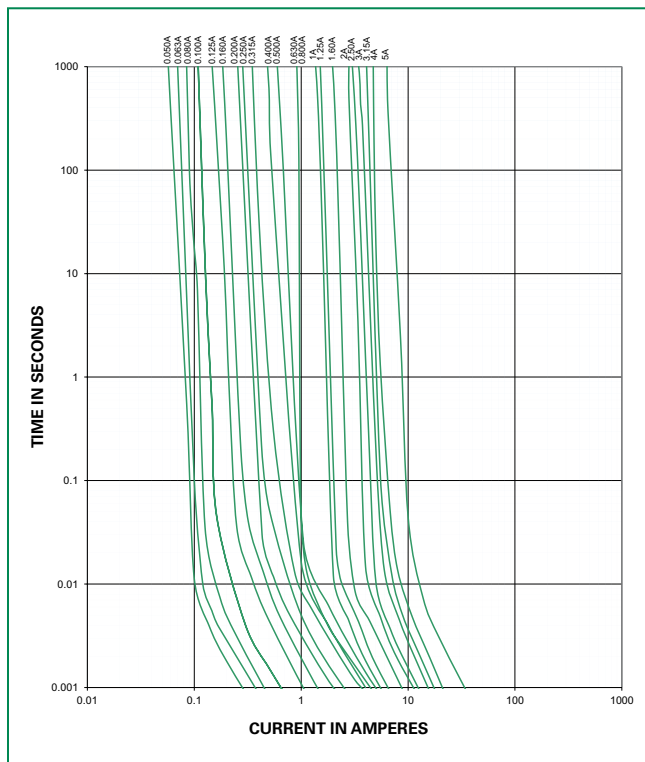
### Temperature Re-rating Curve



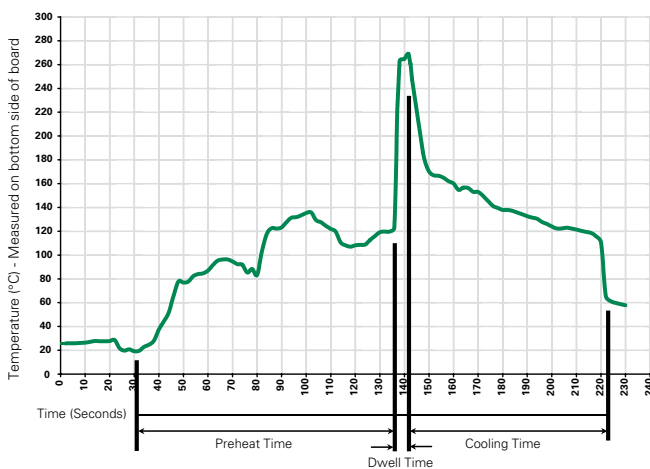
**Note**

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
<b>Preheat:</b> (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.**

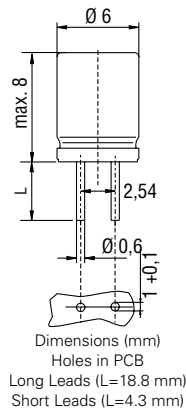


### Product Characteristics

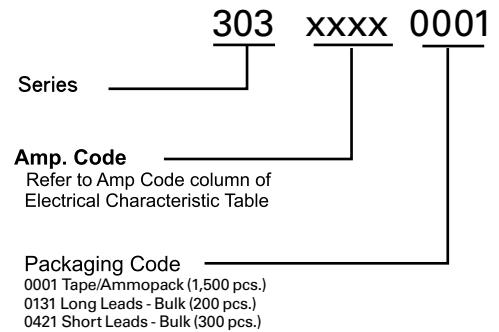
<b>Materials</b>	Base/Cap: Black Thermoplastic Base Polyamide PA 6.6, UL 94V-0 Brass, Nickel-plated Cap Round Pins: Copper alloy, Tin-plated
<b>Lead Pull Strength</b>	10 N (IEC 60068-2-21)
<b>Solderability</b>	260°C, ≤ 3s. (Wave) 350°C, ≤ 1s. (Soldering Iron)
<b>Soldering Heat Resistance</b>	260°C, 10s. (IEC 60068-2-20) 350°C, 3s. (Soldering Iron)

<b>Operating Temperature</b>	-25°C to +70°C (consider de-rating)
<b>Climatic Category</b>	-25°C/+70°C/21 days (IEC 60068-1-3)
<b>Stock Conditions</b>	+10°C to +60°C RH, ≤75% yearly average, without dew
<b>Vibration Resistance</b>	24 cycles at 15 min. each (IEC 60068-6) 10 - 60 Hz at 0.75 mm amplitude 60 - 2000 Hz at 10 g acceleration

### Dimensions



### Part Numbering System



### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Reel Size
<b>303 Series</b>				
Tape & Ammopack	N/A	1,500	0001	N/A
Long Leads	N/A	200	0131	N/A
Short Leads	N/A	300	0421	N/A