# 370 Series

# TR5® Fuse, Fast Acting





### **Additional Information**







Accessories



Samples

## **Description**

The 370 Series are sub-miniature TR5® fuses, fast acting type, 250V rated fuses, designed in accordance to IEC 60127-3.

#### **Features & Benefits**

- Reduced PCB space requirements
- Direct solderable or plug-in versions
- Internationally approved
- Low internal resistance
- Shock safe casing
- Vibration resistant
- Lead-free, Halogen free and RoHS compliant
- Available from 0.040A to 6.3A
- UL Recognized to UL/CSA/ NMX 248-1 and UL/CSA/NMX 248-14
- Conforms to EN/J 60127-1 and EN/J 60127-3
- Conforms to GB/T9364.1 and GB/T9364.3

### **Applications**

- Battery Chargers
- Consumer Electronics
- Power supplies
- Industrial Controllers

#### **Agency Approvals**

Agency	Certificate Number	Ampere Range
<u>Ď</u> YE	40021074 98941 40005316	0.050A - 0.080A 0.100A - 5A 6.3A
VDE	40024532	0.040A
c <b>FL</b> °us	E67006	0.040A - 6.3A
PS E	JET1896-31007-2002	1A - 5A
<b>@</b>	2020970207000050	0.050A - 6.3A

#### **Electrical Characteristics**

% of Ampere Rating	Opening Time
150%	1 Hour, <b>Min</b> .
210%	30 Minutes, <b>Max</b> .
275%	10 ms, <b>Min.</b> ; 3 Sec., <b>Max.</b>
400%	3 ms, <b>Min.</b> ; 300 ms, <b>Max.</b>
1000%	20 ms, <b>Max</b> .

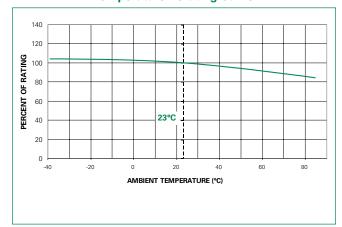


#### **Electrical Characteristics**

				Nominal Cold Voltage Drop		Power	Melting	Agency Approvals				
Amp Code	Rated Current		Breaking Capacity <sup>3</sup>	Resistance (Ohms) <sup>2</sup>	Resistance 1.0×I <sub>N</sub>	Dissipation 1.5×I <sub>N</sub> max. (mW)	Integral 10×I <sub>N</sub> max. (A²s)	VDE	Ď <sup>V</sup> E	c <b>FL</b> °us	⟨PS⟩	<b>(1)</b>
0040	40mA	250V		6.0000	900	100	0.0002	Χ	-	Χ	-	-
0050	50mA	250V		4.0224	320	80	0.0004	-	Χ	X	-	X
0063	63mA	250V		2.6740	350	100	0.0005	-	Χ	X	-	X
0800	80mA	250V		2.0000	370	120	0.0014	-	Χ	X	-	X
0100	100mA	250V		4.6100	600	130	0.0038	-	Χ	X	-	X
0125	125mA	250V		3.2400	550	172	0.0066	-	Χ	X	-	X
0160	160mA	250V		2.2520	500	165	0.0140	-	Χ	X	-	X
0200	200mA	250V		1.6900	465	190	0.0300	-	X	Χ	-	X
0250	250mA	250V		1.3420	400	250	0.0510	-	Χ	X	-	X
0315	315mA	250V	35A @ 250VAC	0.9300	380	250	0.1000	-	X	X	-	X
0400	400mA	250V	33A @ 230VAC	0.1610	120	135	0.0250	-	Χ	X	-	X
0500	500mA	250V		0.1210	120	155	0.0420	-	X	Χ	-	X
0630	630mA	250V		0.0920	115	200	0.0760	-	Χ	Χ	-	X
0800	800mA	250V		0.0760	120	310	0.1200	-	X	X	-	X
1100	1.00A	250V		0.0676	110	310	0.2000	-	X	Χ	Χ	X
1125	1.25A	250V		0.0518	100	360	0.3100	-	X	X	Χ	X
1160	1.60A	250V		0.0420	100	600	0.5300	-	X	Χ	Χ	X
1200	2.00A	250V		0.0325	85	500	0.9800	-	X	Χ	Χ	X
1250	2.50A	250V		0.0246	80	660	1.8000	-	X	X	Χ	X
1315	3.15A	250V		0.0184	90	950	3.1000	-	X	X	Χ	X
1400	4.00A	250V	40A / 250VAC	0.0129	80	920	6.7000	-	X	X	Χ	X
1500	5.00A	250V	50A / 250VAC	0.0105	80	1000	12.0000	-	X	Χ	Χ	X
1630	6.30A*	250V	63A / 250VAC	0.0073	70	1200	24.0000	-	X	X	-	X

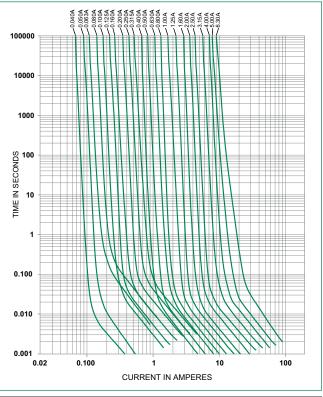
- 1) 1.00 means the number one with two decimal places. 1,000 means the number one thousand.
- 3) Breaking Capacity may differ based on Agency Approval. See Agency Approval certificate for more details.

#### **Temperature Rerating Curve**



1. Rerating 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: (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

> Series **Amp Code**

**Packaging Code** 

Refer to Amp Code column of

Electrical Characteristics Table

0000 Tape/Ammopack (1,000 pcs.) 0410 Short Leads - Bulk (1,000 pcs.)

Heating Time: 5 seconds max.

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

#### **Product Characteristics**

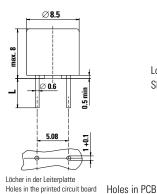
Materials	Base/Cap: Brown Thermoplastic Polyamide PA 6.6, UL 94 V-0 Round Pins: Copper, Tin-plated
Lead Pull Strength	10 N (IEC 60068-2-21)
Solderability	260°C, ≤ 3s. (Wave) 350°C, ≤ 1s. (Soldering Iron)
Soldering Heat Resistance	260°C, 10s. (IEC 60068-2-20) 350°C, 3s. (Soldering Iron)

Operating Temperature	-40°C to +85°C (consider de-rating)		
Climatic Category	-40°C to +85°C/21 days (IEC 60068-1,-2-1,-2-2,-2-78)		
Stock Conditions	+10°C to +60°C RH ≤ 75% yearly average, without dew, maximum value for 30 days-95%		
Vibration Resistance	24 cycles at 15 min. each (IEC 60068-2-6) 10 - 60 Hz at 0.75 mm amplitude 60 - 2000 Hz at 10G acceleration		

**Part Numbering System** 

370 xxxx 0000

#### **Dimensions (mm)**



Long Leads (L=18.8mm)

Short Leads (L=4.3mm)

#### **Packaging**

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width				
370 Series								
Tape & Ammopack	N/A	1,000	0000	N/A				
Short Leads	N/A	1,000	0410	N/A				

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