Effective September 2021 Supersedes January 2019

# 0603FA Fast-acting Chip<sup>™</sup> surface mount fuse



**Surface Mount Device** 

## **Product features**

- AEC-Q200 qualified
- Fast-acting surface-mount fuse
- Satisfies the EIA/IS-722 standard
- Solder immersion compatible

## **Agency information**

- UL Recognition Guide & File numbers: JDYX2 &E19180
- CSA Component Acceptance: 053787 C 000 & Class Number: 1422 30

#### Soldering method

- Wave immersion: +260 °C, 10 seconds maximum
- Infrared reflow: +260 °C, 30 seconds maximum

#### **General specifications**

• Operating temperature: -55 °C to +125 °C with proper derating

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- Load humidity test: MIL-STD-202, Method 103B
- Moisture resistance test: MIL-STD-202, Method 106E
- Thermal shock test: MIL-STD-202, Method 107D
- High frequency vibration test: MIL-STD-202, Method 204D

## Ordering

• Specify packaging and product code (i.e., TR/0603FA250-R)

#### **Environmental compliance**



• Values less than 1 A are not lead free

Electrical Characteristics				
% of Amp Rating	Opening Time			
100%	4 hours minimum			
200%	60 seconds maximum			

Specifications								
Part Number	Current Rating (A)	Voltage Rating	Interrupting Rating (A) at Rated Voltage*	DC Cold Resistance** (Ω) Typical	Typical Melting I <sup>2</sup> t***	Typical Voltage Drop†	Alpha Code Marking‡	
0603FA250-R	250 mA	50 Vdc	50	3.100	0.0004	0.921	D	
0603FA375-R	375 mA	50 Vdc	50	1.250	0.0009	0.605	E	
0603FA500-R	500 mA	32 Vac/50 Vdc	50 ac/35 dc	1.025	0.00193	0.600	F	
0603FA750-R	750 mA	32 Vac/dc	50	0.450	0.0090	0.440	G	
0603FA1-R	1	32 Vac/dc	50	0.150	0.0025	0.211	Н	
0603FA1.25-R	1.25	32 Vac/dc	35	0.108	0.0130	0.151	J	
0603FA1.5-R	1.5	32 Vac/dc	35	0.086	0.0319	0.138	K	
0603FA2-R	2	32 Vac/dc	35	0.051	0.0491	0.116	N	
0603FA2.5-R	2.5	32 Vac/dc	35	0.037	0.0625	0.113	0	
0603FA3-R	3	32 Vac/dc	35	0.028	0.0699	0.110	Р	
0603FA3.5-R	3.5	32 Vac/dc	35	0.022	0.1200	0.103	R	
0603FA4-R	4	32 Vac/dc	35	0.017	0.2430	0.097	S	
0603FA5-R	5	32 Vac/dc	35	0.011	0.6950	0.090	Т	

\* DC Interrupting rating (Measured at designated voltage, time constant of less than 50 microseconds, battery source)

\*\* DC Cold resistance (Measured at ≤10% of rated current)

\*\*\*\* Typical melting I<sup>2</sup>t (Measured with a battery bank at rated DC voltage, 10x-rated current, not to exceed IR, time constant of calibrated circuit less than 50 microseconds) (0603FA4A and 5A measured at interrupting rating)

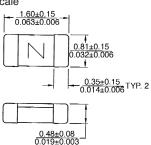
Typical voltage drop (Measured at rated current after temperature stabilizes)

‡ Alpha code to be marked on the top of fuse body for all ratings

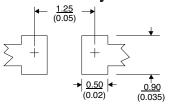


# **Dimensions – mm/inches**

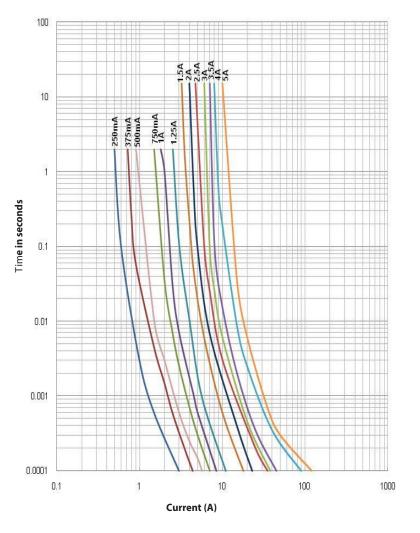
Drawing Not to Scale



# **Recommended Pad Layout – mm/inches**



**Time Current Curve** 



Packaging Code				
Packaging Code Prefix	Description			
TR	5,000 fuses on paper tape and reeled on a 178 mm (7 inch) diameter reel per EIA Standard 481-1			

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