

Raychem Fast Acting Surface-mount Fuses

PRELIMINARY DATA

Benefits

- Small size with high current ratings
- Excellent temperature stability
- High reliability and resilience
- Strong arc suppression characteristics

Features

- Monolithic, multilayer design
- Lead-free construction
- High temperature performance
- -55° to +125°C operating range

Applications

- Laptops
- Digital cameras
- Cell phones
- Printers
- DVD players
- Portable electronics
- Game systems
- LCD displays
- Scanners



Clear Time Characteristics (Fast Acting):

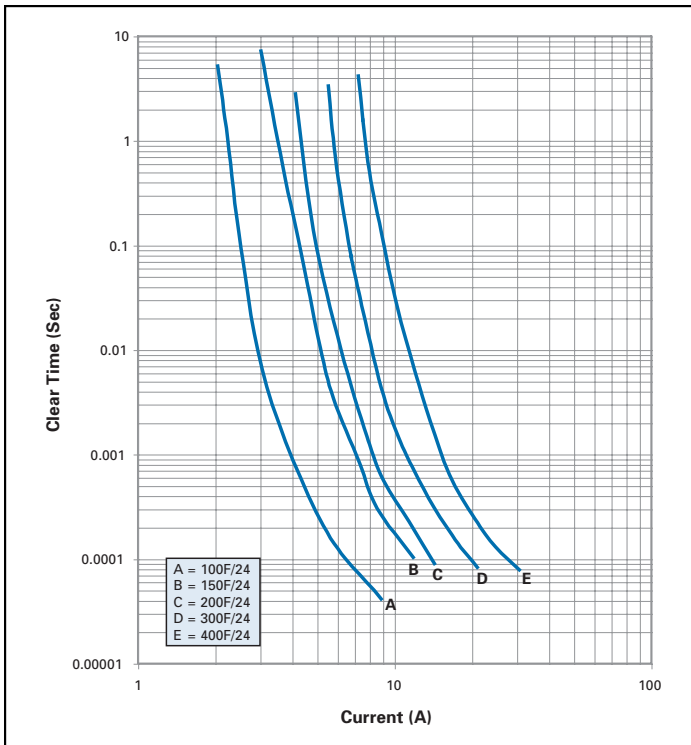
% of rated current	Clear time at 25°C
100%	4 hours min.
250%	5 seconds max.
400%	0.05 seconds max.

Agency Approvals:

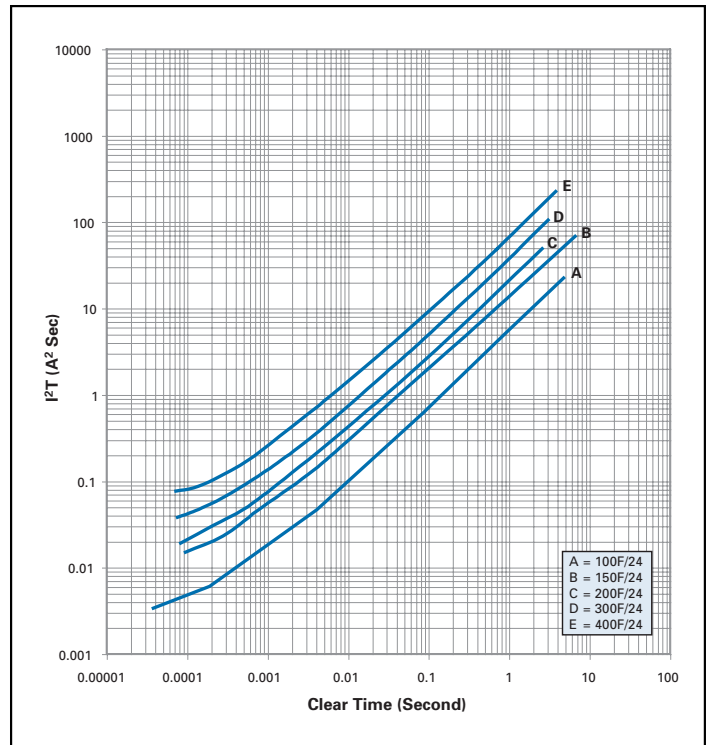
UL File# E197536

Family	Shape and Dimensions Inch (mm)	Recommended Land Patterns Inch (mm)	Part Number	Typical Electrical Characteristics ¹		Max Interrupt Ratings ¹	
				Rated Current (A)	Nominal Cold DCR ² (Ω)	Voltage (V)	Current (A)
0402 (1005mm) Fast Acting Surface-mount Chip Fuses			0402SFF025F/24	0.25	TBD	24	35
			0402SFF038F/24	0.38	TBD		
			0402SFF050F/24	0.50	TBD		
			0402SFF075F/24	0.75	TBD		
			0402SFF100F/24	1.00	0.125		
			0402SFF150F/24	1.50	0.057		
			0402SFF200F/24	2.00	0.041		
			0402SFF300F/24	3.00	0.028		
			0402SFF400F/24	4.00	0.018		
			0603 (1608mm) Fast Acting Surface-mount Chip Fuses				
0603SFF038F/32	0.38	TBD					
0603SFF050F/32	0.50	TBD					
0603SFF075F/32	0.75	TBD					
0603SFF100F/32	1.00	0.140					
0603SFF150F/32	1.50	0.070					
0603SFF200F/63	2.00	0.052					
0603SFF250F/32	2.50	0.035					
0603SFF300F/32	3.00	0.027					
0603SFF350F/32	3.50	0.025					
0603SFF400F/32	4.00	0.019					
0603SFF500F/32	5.00	0.014					
0603SFF600F/24	6.00	0.012	24				
1206 (3216mm) Fast Acting Surface-mount Chip Fuses			1206SFF025F/125	0.25	TBD	63	50
			1206SFF038F/125	0.38	TBD		
			1206SFF050F/63	0.50	TBD		
			1206SFF075F/63	0.75	TBD		
			1206SFF100F/63	1.00	0.220		
			1206SFF150F/63	1.50	0.120		
			1206SFF175F/63	1.75	0.100		
			1206SFF200F/63	2.00	0.050		
			1206SFF250F/32	2.50	0.037		
			1206SFF300F/32	3.00	0.032		
1206SFF400F/32	4.00	0.022					
1206SFF500F/32	5.00	0.018					
1206SFF600F/24	6.00	TBD	32				
1206SFF700F/24	7.00	TBD					
1206SFF800F/24	8.00	TBD	24	45			

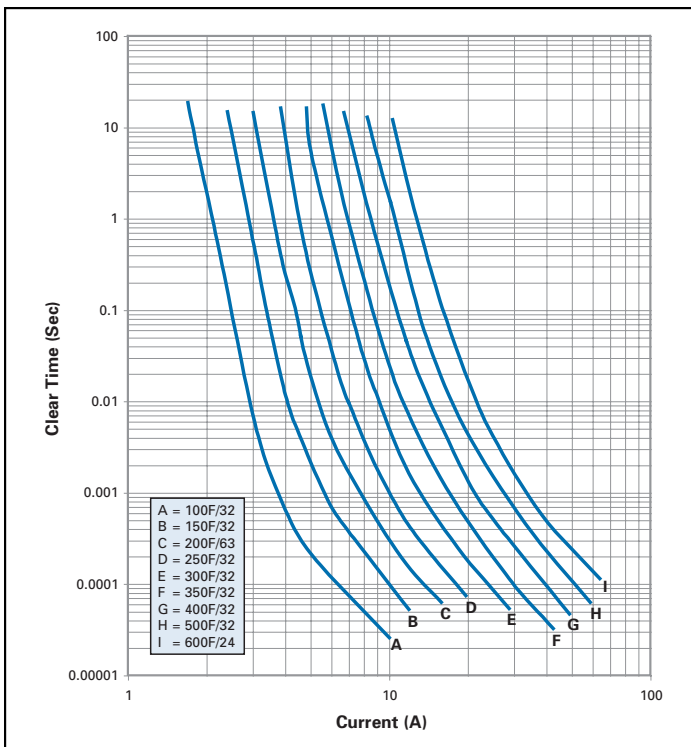
0402SFF Family Average Clear Time



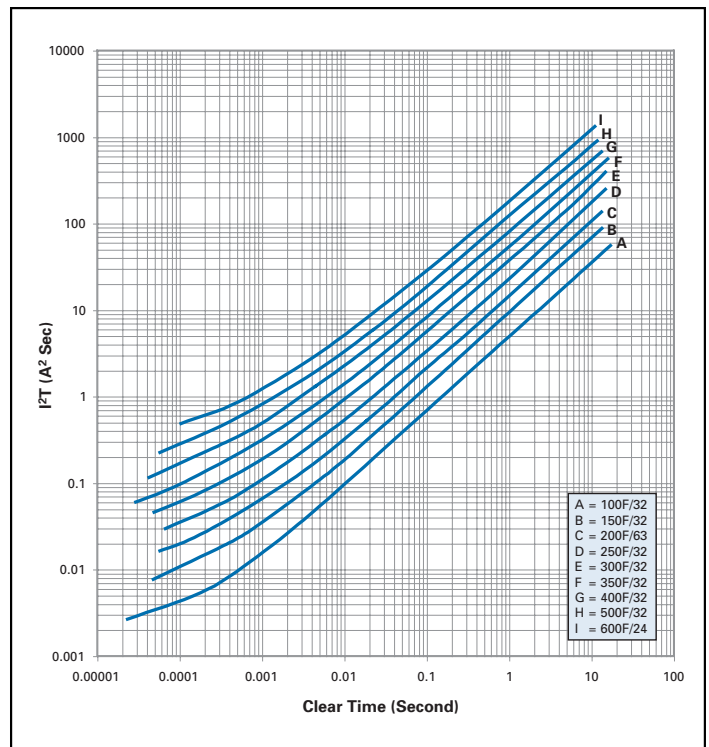
0402SFF Family I²T vs. Clear Time



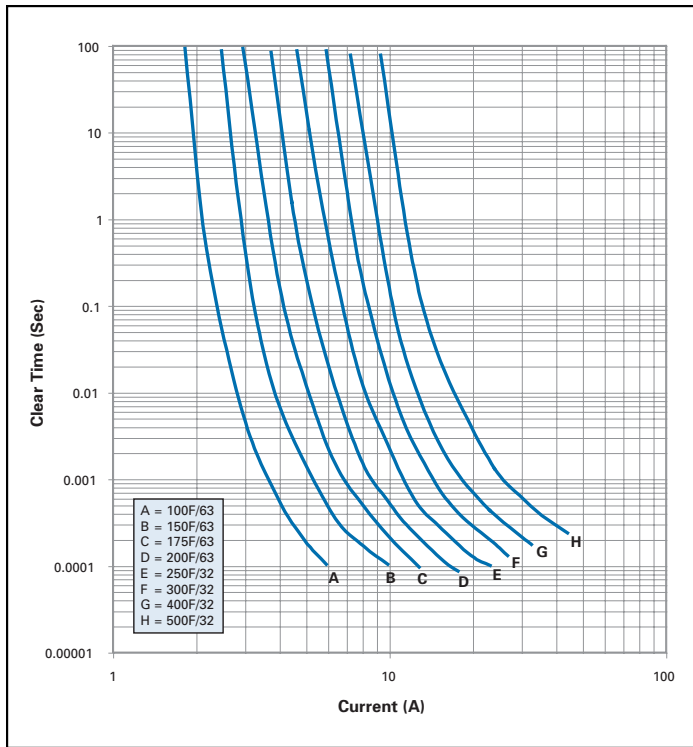
0603SFF Family Average Clear Time



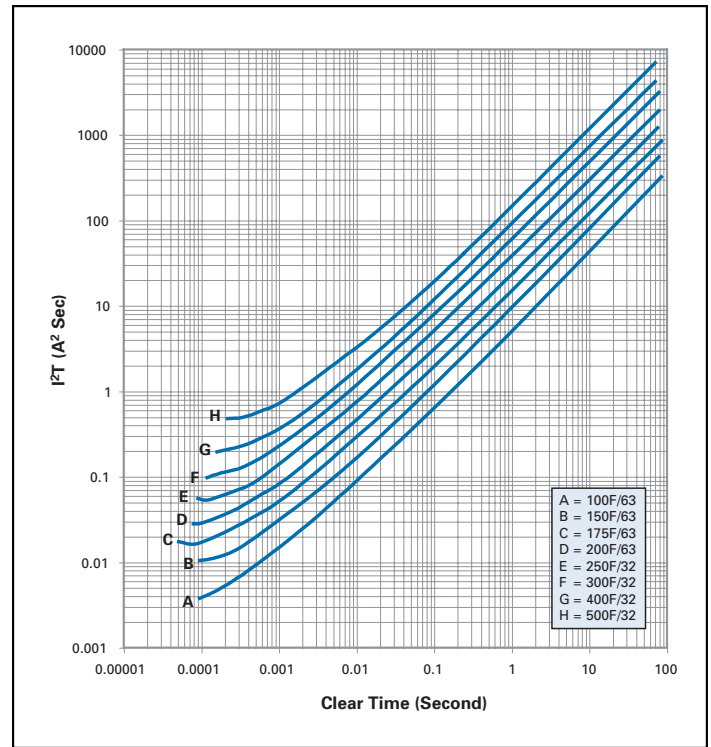
0603SFF Family I²T vs. Clear Time



1206SFF Family Average Clear Time



1206SFF Family I²T vs. Clear Time

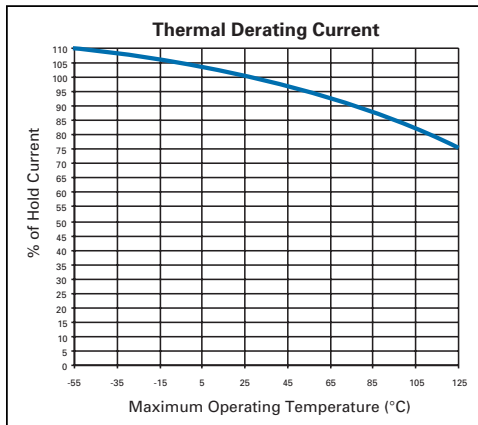


Environmental Specifications

Operating Temperature:	-55°C to +125°C
Mechanical Vibration:	Withstands 5-3000 Hz at 30 Gs per Method 204 of MIL-STD-202
Mechanical Shock:	Withstands 1500 Gs, 0.5 millisecond half-sine pulses per Method 213 of MIL-STD-202
Thermal Shock:	Withstands 100 cycles from -65°C to +125°C per Method 107 of MIL-STD-202
Resistance to Soldering Heat:	Withstands 60 seconds at +260°C when evaluated per Method 210 of MIL-STD-202
Solderability:	Meets 95% minimum coverage requirement when evaluated per Method 208 of MIL-STD-202
Moisture Resistance:	Withstands 10 cycles when evaluated per Method 106 of MIL-STD-202
Salt Spray:	Withstands 48-hour exposure when evaluated per Method 101 of MIL-STD-202

Material Specifications

Construction Body Material:	Ceramic
Termination Material:	Silver, Nickel, Tin
Fuse Element:	Silver
Terminal Strength:	Hanging test: 0603: 0.5kg 30 seconds; 1206 1.5kg, 30 seconds; 0402 part types meet 2-pound push test



Electrical Specifications

Insulation Resistance after Opening:	20,000 ohms minimum
Current Carrying Capacity:	Withstands 100% rated current at +25°C ambient for 4 hours when evaluated per MIL-PRF-23419

Packaging Specifications

Chip Size	Parts on 7-inch (178 mm) Reel
0402 (1005)	10,000
0603 (1608)	4,000
1206 (3216)	3,000

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