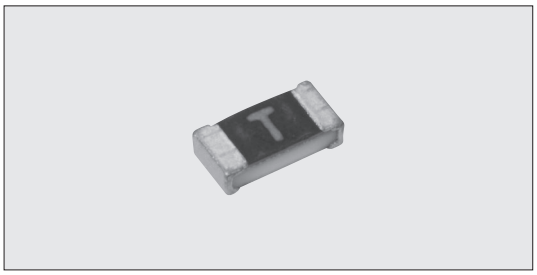
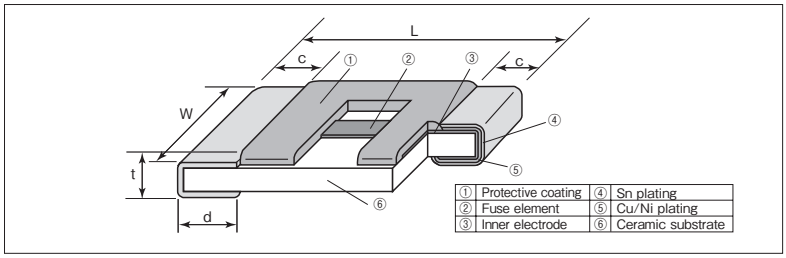
EU RoHS

TF16AT Chip Current Fuses (Anti Pulse)



Coating color : Black

■Construction



■Features

- Small and light chip current fuses for the secondary circuit.
- Excellent in anti-pulse characteristics.
- Original construction and manufacturing method stabilize fusing characteristics.
- Able to reduce an occupied area.
- Low power consumption and less voltage dropping due to exceedingly low internal resistance.
- Suitable for overcurrent protection of circuit block in small electronic devices.
- Suitable for both flow and reflow solderings.
- Products meet EU-RoHS requirements

■Approvals Awarded

UL248.14 File No. E131375
c-UL (CSA) C22.2 No. 248.14 File No. E131375

■Applications

- Notebook personal computers
- HDDs
- Cellular-telephones
- Digital still cameras

■Dimensions

Type (Inch Size Code)	Dimensions (mm)					Weight(g) (1000pcs)
	L	W	c	d	t	
TF16AT (0603)	1.6±0.1	0.8±0.08	0.3±0.1	0.3±0.1	0.45±0.05	2.15

■Type Designation

Example

TF	16A	T	2.50	T	TD
Product Code	Size	Fusing Characteristics	Rated Current	Terminal Surface Material	Taping
	16A:1.6×0.8mm	T:Anti-pulse		T : Sn	TD:4mm pitch punch paper BK:Bulk

Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS.
For further information on taping, please refer to APPENDIX C on the back pages.

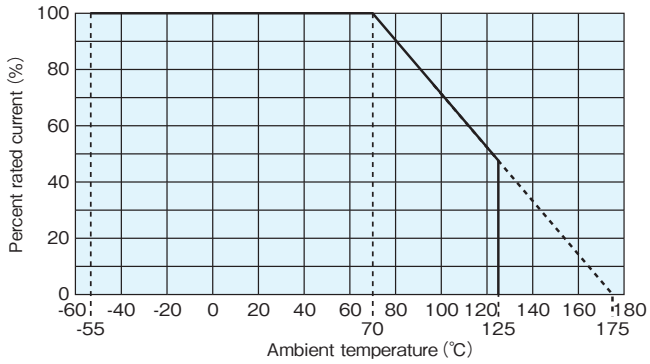
■Ratings

Type	Marking	Rated Current	Fusing Time	Internal R. (mΩ) Max.	Rated Voltage	Rated Ambient Temp.	Operating Temperature Range	Taping & Q'ty/Reel (pcs)
								TD
TF16AT0.25	C	0.25A	Open within 5s at 200% rated current. Refer to the graph of fusing characteristics.	498	32V	+70℃	−55～+125℃	5,000
TF16AT0.315	D	0.315A		384				
TF16AT0.50	F	0.50A		198				
TF16AT0.63	I	0.63A		143				
TF16AT0.80	K	0.80A		120				
TF16AT1.00	L	1.00A		94				
TF16AT1.25	M	1.25A		73				
TF16AT1.60	N	1.60A		59				
TF16AT2.00	S	2.00A		42				
TF16AT2.50	T	2.50A		32				
TF16AT3.15	U	3.15A		24				
TF16AT4.00	X	4.00A		17				
TF16AT5.00	Y	5.00A		14				

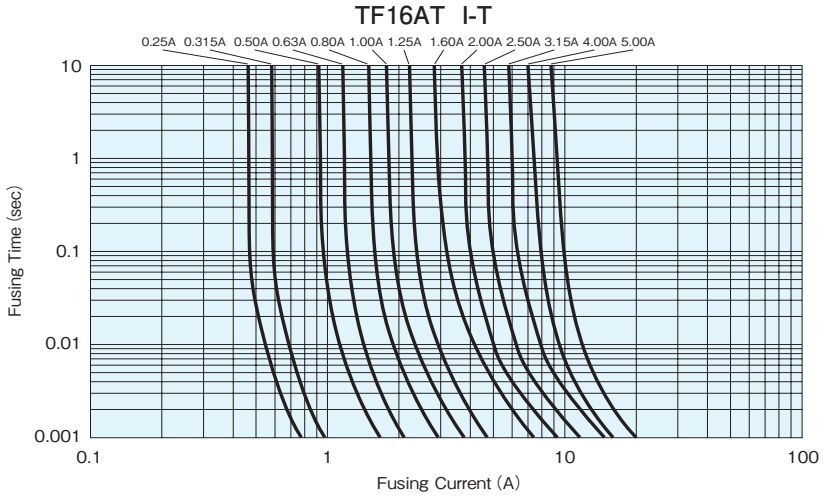
■Derating

- Normal derating
  Normal derating of this product should be 0.75max. as standards.
- Temperature Derating
  Rated Current needs to be derated if used at an ambient temperature of 70℃ or higher. Refer to the derating coefficient on the right figure.
- Stationary current
  Regard the peak of stationary current waveform as stationary current value when the stationary current is repeated pulse.

■Rated Current Derating



■Fusing Characteristics (Average Fusing Time)



■Performance

Test Items	Performance Requirements ΔR±%		Test Methods
	Limit	Typical	
Fusing characteristics	Within 5s	—	200% of rated current shall be carried. (at 25℃)
Bending test	No mechanical damages.	—	Distance between holding points 90mm, bending width 3mm, 1time.
Resistance to soldering heat	10	5	260℃±5℃, 10s±0.5s
Solderability	95% coverage min.	—	245℃±3℃, 3s±0.5s
Load life	10	5	70℃±2℃, 1000h, Rated current×75%, 1.5h ON/0.5h OFF cycle
Load life moisture	10	5	40℃±2℃, 90%～95%RH, 1000h, Rated current×75%, 1.5h ON/0.5h OFF cycle
Rapid change of temperature	10	5	−55℃ (30min) / +125℃ (30min) 10 cycles
Resistance to solvent	No evidence of damages to protective coating and marking.	—	Conforming to MIL-STD-202F
Residual resistance	10kΩ or more	—	Measure DC resistance after fusing

■Precautions for Use

- The fuse element is protected by special resin so that the product achieves to have fusing characteristic. Adjust the bottom dead center of the nozzle and keep the product free from excessive stress when you mount it. Damage by excessive stress to the product may affect the characteristic or lead to disconnection.
- When you select fuse product, please make sure to confirm "Precautions for Use of Fusing Components" in this catalogue and ask KOA sales.