

## chip current fuses for automotive

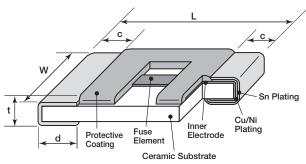


#### features



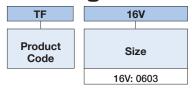
- Small and light chip current fuses for the secondary circuit
- Temperature cycle (-55°C ~ 125°C), 1000 cycle
- Original construction and manufacturing method stabilize fusing characteristics
- Suitable for overcurrent protection of circuit block in small electronic devices
- Suitable for reflow solderings
- Products meet EU RoHS requirements
- AEC-Q200 Tested

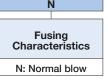
## dimensions and construction



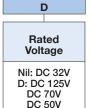
Time	Dimensions inches (mm)					
Туре	L	W	С	d	t	
TF16VN	.063±.004	.031±.004	.014±.004	.012±.004	.018±.004	
(0603)	(1.6±0.1)	(0.8±0.1)	(0.35±0.1)	$(0.3\pm0.1)$	(0.45±0.1)	

### ordering information









Т			
Terminal Surface Material			
T: Sn			

TD
Taping
TD: 4mm pitch punch paper

For further information on packaging, please refer to Appendix A.

## ratings

Туре	Marking	Rated Current	Fusing Time	Internal R. (mΩ)Max.	Rated Voltage	Rated Ambient Temp.	Operating Temperature Range
TF16VN0.40	Н	0.40A		760	DC 32V		
TF16VN0.50	F	0.50A	Open within 5 sec. at 250% rated current. Refer to the graph of fusing characteristics.	520	(DC125V)	+70°C	–55°C ~ 125°C
TF16VN0.63	I	0.63A		370	DC 32V (DC70V)		
TF16VN0.80	K	0.80A		200			
TF16VN1.00	L	1.00A		160			
TF16VN1.25	M	1.25A		130			
TF16VN1.60	N	1.60A		100			
TF16VN2.00	S	2.00A		80			
TF16VN2.50	Т	2.50A		60			
TF16VN3.15	U	3.15A		40	DC 32V (DC50V)		

High rated voltage products (DC 125V: 0.4A to 0.5A, DC 70V: 0.63A to 2.5A, DC 50V: 3.15A) are available. Please ask KOA sales.

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

2/28/25

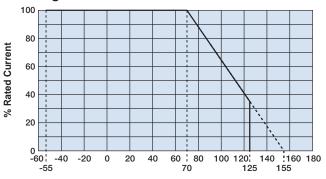


# TF16VN

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## environmental applications

#### **Derating Curve**

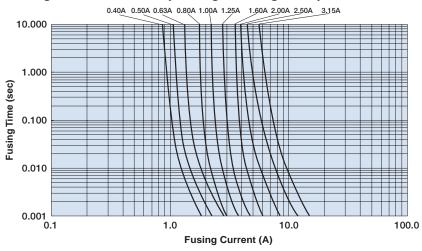


Stationary current: Regard the peak of stationary current waveform as stationary current value when the stationary current is repeated pulse.

Temperature Derating: Rated Current needs to be derated if used at an ambient temperature of 70°C or more. Refer to the derating coefficient on the left figure.

# Ambient Temperature (°C)

### **Fusing Characteristics (Average Fusing Time)**



## **Performance Characteristics**

Took House	Performance Requirements ∆R±%		Total Mallords	
Test Items	Limit Typical lest Method		Test Methods	
Fusing Characteristics	Within 5 seconds	_	250% of rated current shall be carried (@25°C)	
Bending Test	No mechanical damages	_	Distance between holding points 90mm, bending width 2mm, 1 time.	
Resistance to Soldering Heat (Reflow Soldering)	10	5	Preheating: 150+30°C, 90 ± 30 seconds Heating: 230°C or more, 30 ± 10 seconds, max. 260°C	
Solderability	95% coverage min.	_	245°C±3°C, 3 seconds ± 0.5 seconds	
Load Life	10	5	70°C±2°C, 1000h, Rated current × 100%, 1.5h ON/0.5h OFF cycle	
Load Life Moisture	10	5	85°C±2°C, 85%±5%RH, 1000h, Rated current × 10%, 1.5h ON/0.5h OFF cycle	
Rapid Change of Temperature	10	5	-55°C (30min.)/+125°C (30min.) 1000 cycles	
Resistance to Solvent	No evidence of damages to protective coating and marking.	_	Conforming to MIL-STD-202F	
Residual Resistance	10k $\Omega$ or more	_	Measure DC resistance after fusing	

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10/17/18