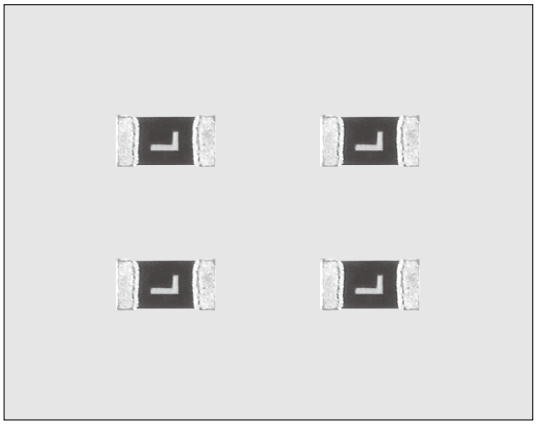
EU RoHS

TF10BN 片式保险丝 Chip Current Fuses



外观颜色： 黑色　Coating color： Black

■ 特点　Features

- 是1005规格的超小型、轻量的二次电路用片状电流保险丝。可以把占有面积缩小。
- 机械强度优异。
- 根据独家的结构、制作方法，熔断特性稳定。
- 内部电阻值低，电压降低，可以减少功率消耗。
- 适用于小型电子设备的电路组件的过电流保护。
- 对应回流焊接。
- 对应欧盟RoHS。
- 1005 size miniature and light chip current fuses for the secondary circuit. An occupied area reducible.
- Excellent in mechanical strength.
- The original construction and manufacturing method make the fusing characteristics stable.
- Low power consumption and less voltage dropping possible due to low internal resistance.
- Suitable for over current protection of circuit block in small electronic devices.
- Suitable for reflow soldering.
- Products meet EU-RoHS requirements.

■ 取得规格　Approvals Awarded

UL248.14　认定文件号　File No. E131375
c-UL（CSA）C22.2　No.248.14
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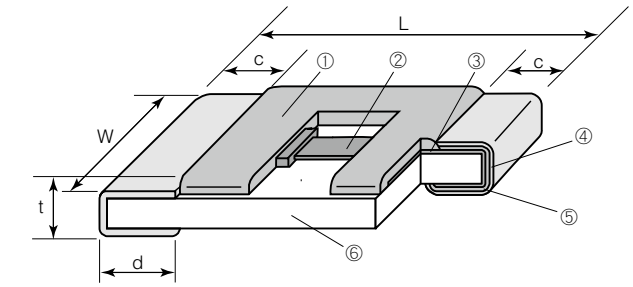
■ 用途　Applications

- 手机　Cellular-telephones
- 数码相机　Digital still cameras
- PDA　PDAs

■ 结构图　Construction



①	保护膜	Protective coating	④	镀锡	Sn plating
②	熔丝	Fuse element	⑤	镀铜/镍	Cu/Ni plating
③	内部电极	Inner electrode	⑥	陶瓷基板	Ceramic substrate

■ 外形尺寸　Dimensions

型号 Type (Inch Size Code)	尺寸 Dimensions （mm）					Weight (g) (1000pcs)
	L	W	c	d	t	
TF10BN（0402）	1.0±0.1	0.5±0.05	0.2±0.1	0.25±0.1	0.4±0.05	0.68

■ 品名构成　Type Designation

实例　Example

TF	10B	N	1.00	T	TB
品种 Product Code	尺寸 Size	熔断特性 Fusing Characteristics	额定电流 Rated Current	端子表面材质 Terminal Surface Material	二次加工 Taping
	10B:1.0×0.5mm	N:普通熔断 N:Normal blow		T：Sn	TB:2mm pitch press paper BK:Bulk

预知关于此产品含有的环境负荷物质详情（除EU-RoHS以外），请与我们联系。
编带细节请参考卷末附录C.
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.

■ 额定值　Ratings

型　号 Type	表示 Marking	额定电流 Rated Current	熔断时间 Fusing Time	内部电阻值 Internal R.（mΩ）Max.	额定电压 Rated Voltage	额定环境温度 Rated Ambient Temp.	使用温度范围 Operating Temperature Range	编带和包装数/卷 Taping & Q'ty/Reel (pcs) TB
TF10BN0.20	A	0.20A	施加额定电流的200%的电流时，在5秒钟以内参照熔断特性图。Open within 5 s. at 200% rated current. Refer to the graph of fusing characteristics.	1990	24V	＋70℃	－55～＋125℃	10,000
TF10BN0.25	C	0.25A		1270				
TF10BN0.315	D	0.315A		850				
TF10BN0.50	F	0.50A		320				
TF10BN0.63	I	0.63A		200				
TF10BN0.80	K	0.80A		135				
TF10BN1.00	L	1.00A		115				
TF10BN1.25	M	1.25A		90				
TF10BN1.60	N	1.60A		58				
TF10BN2.00	S	2.00A		42				
TF10BN2.50	T	2.50A		35				
NEW TF10BN3.00	V	3.00A		30				

■ 降低额定值　Derating

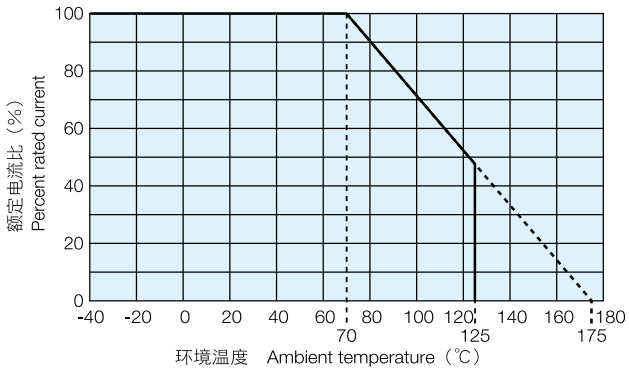
● 稳恒电流
稳恒电流在重复脉冲时，稳恒电流波形的峰值是恒稳电流值。

● 降低温度
在环境温度70℃以上使用时，需要校正温度，请参考右图的降低系数。

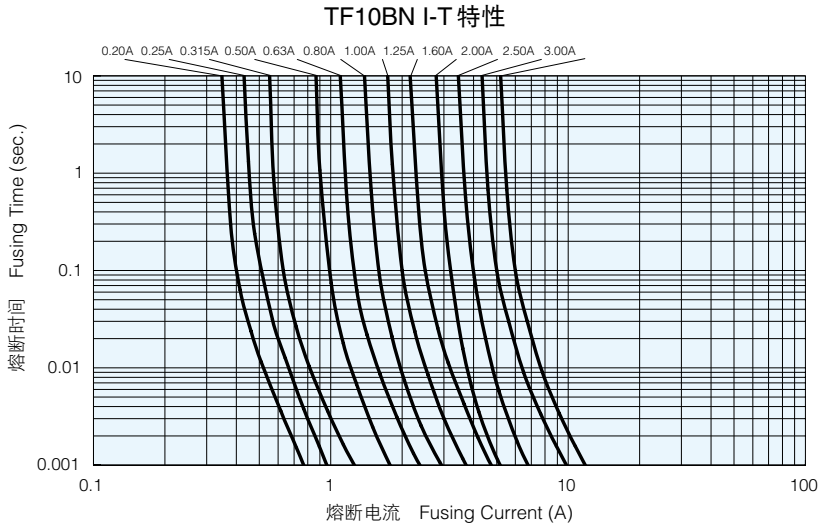
● Stationary current
Regard the peak of stationary current waveform as stationary current value when the stationary current is repeated pulse.

● Temperature Derating
Rated current needs to be derated if used at an ambient temperature 70℃or above. Refer to the derating coefficient on the right figure.

■ 根据环境温度减轻额定电流　Rated Current Derating



■ 熔断特性　Fusing Characteristics（标准熔断时间　Average Fusing Time）



■ 性能　Performance

试验项目 Test Items	标准值　Performance Requirements ΔR±% 保证值　Limit	代表值　Typical	试验方法 Test Methods
熔断特性 Fusing characteristics	5秒以内 Within 5s.	–	施加额定电流的200%的电流。 200%of rated current shall be carried.
电极强度 Bending test	应当没有电极剥离、导通断线等异常。 No mechanical damages.	–	支持点间隔90mm。弯曲宽度3mm，一次。 Distance between holding points 90mm, bending width 3mm, 1time.
耐焊接热 Resistance to soldering heat	10	5	260℃±3℃, 5s $^{+1}_{-0}$ s
焊接性 Solderability	95%以上为新的焊接覆盖。 95%coverage min.	–	245℃±3℃, 3s±0.5s
通电寿命 Load life	10	5	70℃±2℃，1000h，额定电流×100%，1.5小时ON/0.5小时OFF的周期。 Rated current×100%，1.5h ON/0.5h OFF cycle
耐湿通电寿命 Load life moisture	10	3	40℃±2℃，90%～95%RH，1000小时，额定电流×100%，1.5小时ON/0.5小时OFF的周期。 Rated current×100%，1.5h ON/0.5h OFF cycle
温度突变 Rapid change of temperature	10	5	－55℃（30min）/＋125℃（30min.）10 cycles
耐溶剂性 Resistance to solvent	外观应无消失等异常。 No evidence of damages to protective.	–	依据MIL-STD-202F Conforming to MIL-STD-202F
残留电阻值 Residual resistance	10KΩ以上 10kΩor more	–	熔断后的直流电阻值。 Measure DC resistance after fusing

■ 使用上的注意

● 本产品的基材，为了得到保险丝特性，使用了特殊的陶瓷基板。请避免在氧化气体/液体环境下使用，因为玻璃成分的侵蚀会使材料强度降低，有特性退化的危险，请注意。

● 选定保险丝时，请与本目录内的「保险丝的使用注意事项」一起确认。

● The substrate material of TF10BN applies ceramics to achieve good fusing characteristics. Please keep away from oxygen gas/liquid because such environment may deteriorate element strength and the performance by glass component corrosion.

● When you select fuse product, please make sure to confirm "Precautions for Use of Fusing Components" in this catalogue and ask KOA sales.