

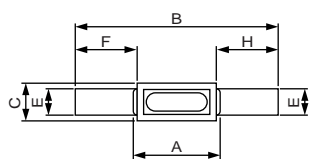
Thermoprotectors

With the light and slim packages and the lower impedance characteristics, our thermoprotectors are applied for the battery protection of many mobile communication products.

- Realized the super slim package with less than 1mm thickness. With smaller package, can meet the requirement of smaller battery pack.
- Nickel lead terminals are corrosion-proof and durable for bending, and also available with spot-welding.

THERMOPROTECTOR TA SERIES

■ Dimensions



Dimensions(%)				
	A	B	C	D
TA1·TA2	11.6±1.4	26.9±1.0	5±1	0.75±0.25
TA4				0.95±0.25
	E	F	G	H
TA1·TA2	3.5±0.5	8.2±0.5	0.1±0.02	8.2±0.5
TA4				

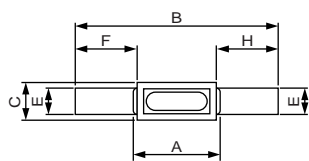
■ Ratings

Type No.	Rated Functioning Temperature (°C) T _F -T _f	Cut-off Temperature (°C)	T _H T _h T _C (°C)	T _M T _m (°C)	Electrical Rating		UL
					Ampere (A)	Voltage (Vdc)	
TA1	97	93±2	60	150	1	40	○
TA2	98	94±2	60	150	2	40	○
TA4	98	94±2	60	150	4	40	○

UL : E50082

THERMOPROTECTOR TS SERIES

■ Dimensions



Dimensions(%)					
Type No.	SIZE	A	B	C	D
TS1N TS2N TS2S	Regular	8.3 ^{+0.4} -1.3	26.9±0.5	3.9 ^{+0.3} -0.5	0.75±0.2
TS1E	Long		31.9±0.5		
Type No.	SIZE	E	F	G	H
TS1N TS2N TS2S	Regular	3.0±0.2	9.8±0.5	0.1±0.02	9.8±0.5
TS1E	Long				14.8±0.5

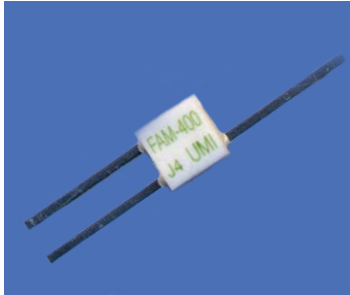
■ Ratings

Type No.	Rated Functioning Temperature (°C) T _F -T _f	Cut-off Temperature (°C)	T _H T _h T _C (°C)	T _M T _m (°C)	Electrical Rating		UL
					Ampere (A)	Voltage (Vdc)	
TS1N	97	93±2	60	150	1.2	40	○
TS2N	98	94±2	60	150	2	40	○
TS2S	93	89±3	60	150	2	40	○
TS1E	108	104±3	70	150	1.5	40	○

UL : E50082

- Regular dimensional models are not in production. In case of your requirement, please consult with our sales representatives.

Thermoprotectors TA/TS series have not only thermal cutoff functions but also current cutoff functions. Please ask for the technical data, if you require the detailed information.



FEATURES

- FAM is an environment-friendly product which does not contain cadmium and lead.
- Improved response time with ceramic substrate.
- Suitable as a cutoff device in double protection circuit.

IMPORTANT NOTICE

- Please study "Application instructions" before designing of your equipments and installation of Fusing Resistor Model No.FAM.
- Interrupting characteristics vary depending on ambient conditions in testing.

ELCUT

FUSING RESISTOR

NEW PRODUCT

Type No. FAM

■ Ratings

Model No.	Thermal cutoff function part			Resistor part			UL
	Cut-off Temperature (°C)	Electrical Rating		Rated Wattage (W)	Resistance (Ω)	Resistance Tolerance (%)	
		Ampere (A)	Voltage (V _{DC})				
FAM	135 ± 3	8	50	0.125	20, 40, 60	± 30	●

U L : E 106175

Rated current is based on an ambient temperature of 50°C.

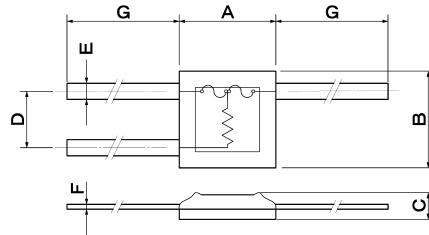
Please consult our Sales department for an application with greater current.

With regard to Rated current, there is not description in UL1412.

Rated current in above table is our original rating.

- Cut-off temperature is mesured with silicone oil bath of which temperature is increased at the rate of 1 /min. Detecting current is 0.1 A or less.
- Please refer to "Derating Curve" below for ambient temp. of 25 °C or over.

■ Dimensions

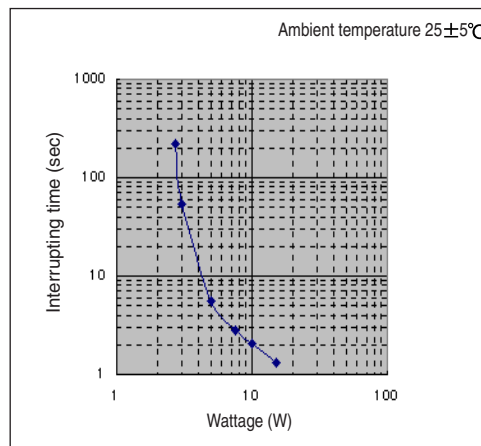


mm			
A	B	C	D
6.2 ± 1	6.2 ± 1	1.75 MAX	3.5 ± 0.5
E	F	G	
1.0 ± 0.1	0.3 ± 0.1	12.9 ± 2	

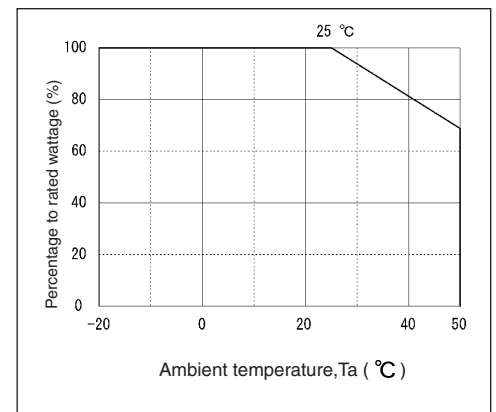
Interrupting characteristics

<Test method>

D.C. voltage is adjusted to generate test wattage in a fusing resistor function part, and opening of thermal cutoff function part is determined by detection of 0.1 A. The opening time is measured.



Derating curve



Rating and data mentioned above are based on prototype. They are subject to change without notice.

Interrupting characteristics are only for reference.

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These details are based on specifacation as of Apr. 2005
 2005.4 (Ver.4)