

SINLOON<sup>(R)</sup>

表面貼裝片式保險絲  
Current Range: 0.315A~4.0A

Case: 0402 TFF04 Series  
Surface Mount Thin Film Chip Fuse

**Features (特性)**

Surface mount (0402) case designed (小型化表面封裝設計)  
Designed for over current protection (超電流保護)  
Ampere rating from 315mA~400mA. (電流由0.315A~4.0A)  
Low internal resistance (低內阻)  
Extremely small current rating (非常小的電流額定值)  
Lead-Free, RoHS compliant for global application and halogen free  
無鉛,符合RoHS標準及無鹵.

**Figure(外型)**



**Application (應用)**

Portable electronics equipment (便攜式電子設備)  
Personal computer, Notebook, server (個人電腦, 筆記本電腦及服務器)  
Multi-function printer, scanner, projector. (功能打印機, 掃描機, 投影機)  
LCD Display, TV and Monitor (LEC 顯示器, 電視及顯示器)  
Set Top Box and Data modem (機頂盒和數據解碼器)



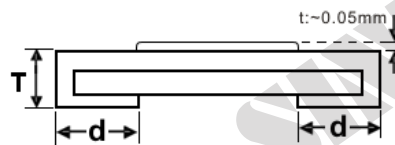
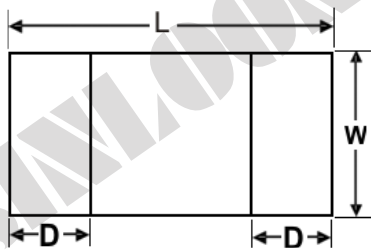
**Ordering Information: (訂單貨編格式)**

Example (例): TFF04V3A315T ( 0402 32V 0.315A T/Reel)

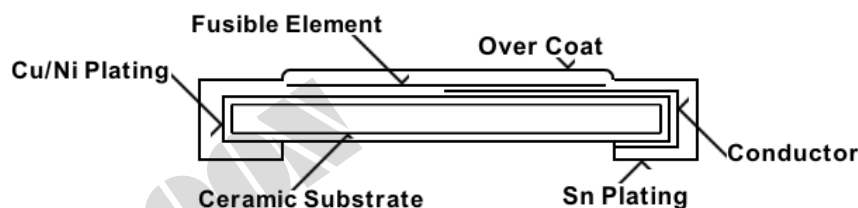
Product	Case	Voltage	Current	Tackage
TFF	04=0402	V3=32V	A3=0.3mA	T=Tape/R
	06=0603	V5=50V	3A=3.0mA	
	12=1206	V6=63V		

**Dimension (規格尺寸)**

Part No.	Case	Dimension (mm)				
		L	W	D	d	T
TFF04	0402	1.05±0.15	0.53±0.06	0.22±0.12	0.26±0.11	0.36±0.1
TFF06	0603	1.65±0.15	0.81±0.2	0.32±0.12	0.36±0.21	0.48±0.2
TFF12	1206	3.15±0.15	1.65±0.15	0.52±0.12	0.52±0.15	0.62±0.15



**Construction: (結構)**



SINLOON<sup>(R)</sup>

表面貼裝片式保險絲  
Current Range: 0.315A~4.0A

Case: 0402 TFF04 Series  
Surface Mount Thin Film Chip Fuse

Electrical Specification

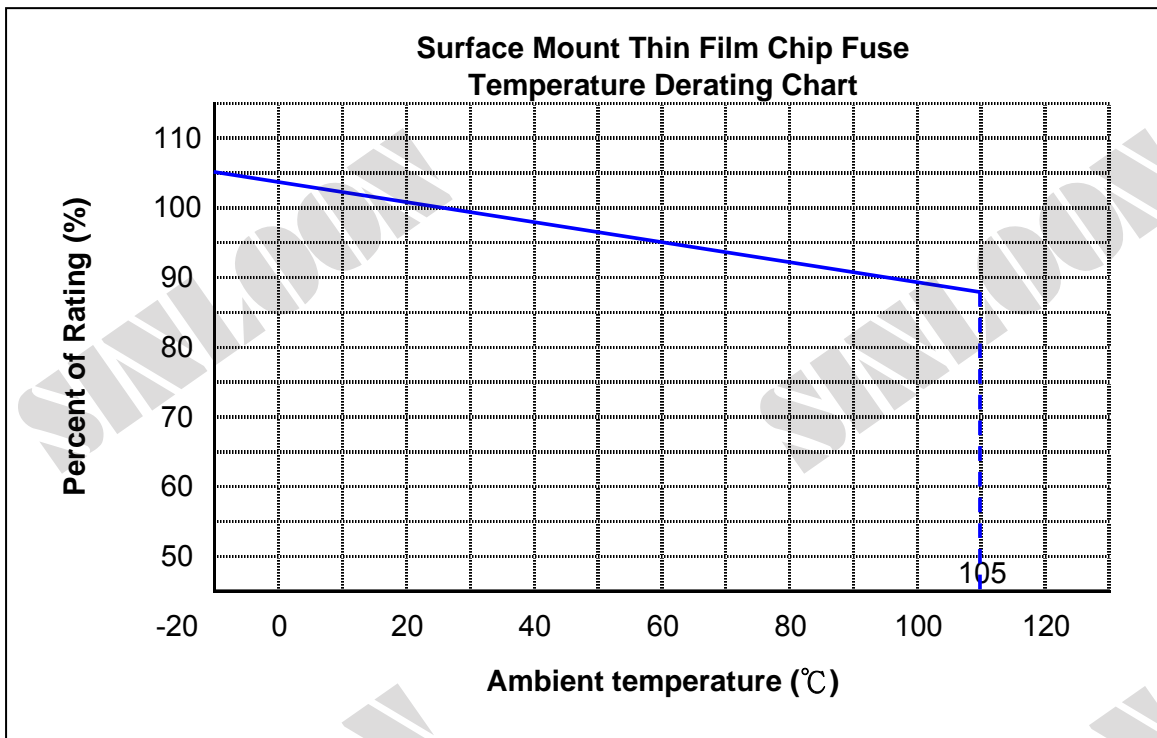
Part No. Designation	Rated Current (A)	Resistance (Ω) <sup>1</sup>	Rated Voltage	Breaking Capacity	Fusing Time	Body Temp. Rising	Marking Code	T/Reel Quantity
TFF04V3A315T	0.32	0.690	DC-32V	DC32V/35A	Open within 1min. At 200% rated current	<75°C at 100% rated current	D	10Kp Reel
TFF04V3A50T	0.50	0.340	DC-32V	DC32V/35A			F	10Kp Reel
TFF04V3A75T	0.75	0.140	DC-32V	DC32V/35A			V	10Kp Reel
TFF04V3A80T	0.80	0.100	DC-32V	DC32V/35A			K	10Kp Reel
TFF04V31A0T	1.00	0.095	DC-32V	DC32V/35A			L	10Kp Reel
TFF04V31A25T	1.25	0.057	DC-32V	DC32V/35A			M	10Kp Reel
TFF04V31A50T	1.50	0.045	DC-32V	DC32V/35A			P	10Kp Reel
TFF04V31A60T	1.60	0.044	DC-32V	DC32V/35A			N	10Kp Reel
TFF04V32A0T	2.00	0.033	DC-32V	DC32V/35A			S	10Kp Reel
TFF04V32A5T	2.50	0.025	DC-32V	DC32V/35A			T	10Kp Reel
TFF04V33A0T	3.00	0.019	DC-32V	DC32V/35A			3	10Kp Reel
TFF04V33A15T	3.15	0.018	DC-32V	DC32V/35A			U	10Kp Reel
TFF04V34A0T	4.00	0.012	DC-32V	DC32V/35A			W	10Kp Reel

(Ω)<sup>1</sup> Tolerance: ±25% (阻值誤差:±25%)

Resistance value was measured with less than 10% rated current. (電阻值的變化小於10%的額定電流)

Others data not in the specification of data, please contact us. (如果你要求的規格不在本規格書裡請與我們聯絡)

Temperature Derating Curve



1. Normal ambient temperature : 25°C.
2. Operating temperature: -20°C ~ 105°C, whit proper derating factor.

SINLOON<sup>(R)</sup>

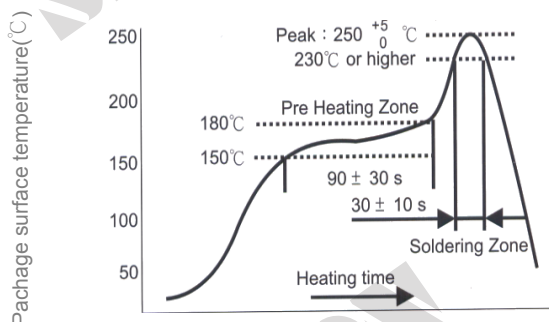
表面貼裝片式保險絲  
Current Range: 0.315A~4.0A

Case: 0402 TFF04 Series  
Surface Mount Thin Film Chip Fuse

### Reliability Tests

Parameter	Test Method	Requirement
Bending Test	Distance between holding points: 90mm Bending: 3mm, 1 time, 30 sec.	No mechanical damages
Carrying capacity	Rated Current 4 hrs	No Fusing
Fusing Time	200% of its rated current	Withing 1 minute
Interrupting Ability	After the Fuse is interrupted, Rated voltage applied for 30 sec again.	No mechanical damages
Residual Resistance	Measure DC resistance after Fusing	10KΩ and more
Resistance to DRY Heat	105°C±5°C, 1000hrs	±20%
Resistance to solder Heat	260°C±5°C, 10±1second	±20%
Resistance to Solvent	23°C±5°C, 1000hrs	No evident damages on protective coating and marking
Solderability	235°C±5°C, 2±0.5sec. 245°C±5°C, 2±0.5sec. (Lead Free)	95% coverage minimum
Temperature Rise	100% of its rated current, measure of surface temperature	<75°C
Thermal Shock	-20°C/+25°C/+125°C/+25°C. 10 cycles	△R<10%

### Soldering Profile

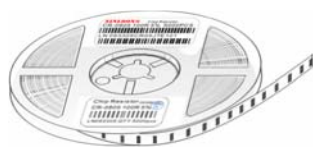


Peak : 250 <sup>+5</sup>/<sub>-0</sub> °C 5 second  
Pre - Heat Zone: 150 to 180°C, 90±30 second  
Soldering Zone: 230°C or higher, 30±10 second.

### Package Information:

Part No.	Case	Quantity(ea)			
		Paper Reel Tape	In Box	Carton	
TFF04	0402	10,000 Pcs 7" Reel	100K pcs	600K pcs	
TFF06	0603	5,000 Pcs 7" Reel	50K pcs	300K pcs	
TFF12	1206	5,000 Pcs 7" Reel	50K pcs	300K pcs	

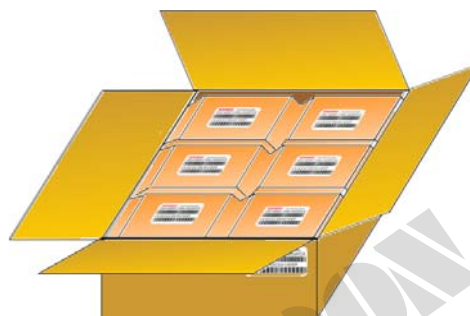
Plastic Reel



Inside box



Carton



- ※ 美隆電子產品規格特性參數的改變和更新不會另行通知。
- ※ Mayloon characteristic parameters of electronic product specification changes or updates without prior notice.