

## INDIVIDUAL SPECIFICATION SHEET

**Product Name:** Radial Leaded Through-Hole Type Device

**Part Number:** TRA110-1/6

**Revision:** F



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Rev.	Effective Date	Changed Contents
E	2014-10-28	Revise Cover
F	2024-8-2	Update TUV certification

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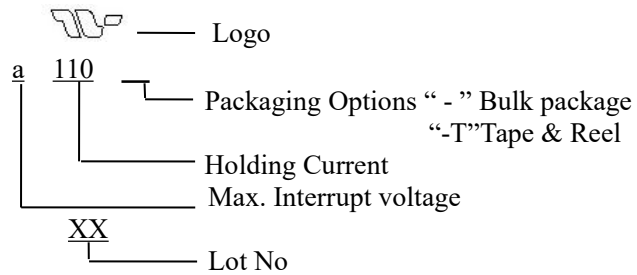
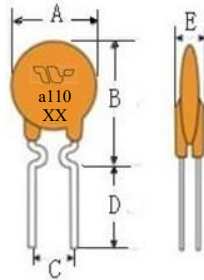


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## Product Introduction

### 1. Product Dimensions & Outline Drawing & marking (Unit:mm)



Model	A	B	C	D	E	Lead
	MAX	MAX	TYP		MAX	$\Phi$
TRA110-1/6	7.4	13.0	5.1	编带	3.1	0.50

### 2. Electrical Properties

Model	$I_H$ (A)	$I_T$ (A)	$V_{max}$ (V)	$I_{max}$ (A)	$T_{trip}$		$P_{d\ typ}$ (W)	$R_{min}$ ( $\Omega$ )	$R_{max}$ ( $\Omega$ )	$R1_{max}$ ( $\Omega$ )
					(A)	(S)				
TRA110-1/6	1.10	2.20	6	40	5.50	4.0	0.54	0.045	0.140	0.170

$I_H$ : Holding Current: maximum current at which the device will not trip in 25°C still air.

$I_T$ : Tripping Current minimum current at which the device will trip in 25°C still air.

$V_{max}$ : Maximum voltage device can withstand without damage at rated current.

$I_{max}$ : Maximum fault current device can withstand without damage at rated voltage.

$T_{trip}$ : Maximum time to trip(s) at assigned current.

$P_{d\ typ}$ : Rated working power.

$R_{min}$ : Minimum resistance of device prior to trip at 25°C.

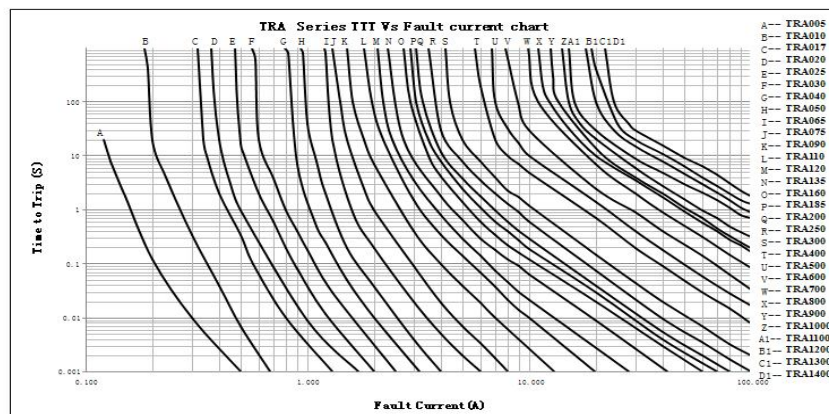
$R_{max}$ : Maximum resistance of device prior to trip at 25°C.

$R1_{max}$ : Maximum resistance of device measured one hour after tripping at 25°C.

### 3. Thermal Derating Chart – $I_{hold}$ (Amps)

Model	Ambient Operating Temperature								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
TRA110-1/6	1.61	1.43	1.24	1.10	0.89	0.83	0.74	0.66	0.56

### 4. Typical time to trip at 25°C



## 5. Environmental Characteristics

Operating/Storage Temperature ..... -40 °C to +85 °C

Maximum Device Surface Temperature in Tripped State ..... 125 °C

Storage Conditions ..... +40 °C Max. 70% RH Max. Packed in original packaging.

## 6. Conformance Requirement

NO.	Item	Test Condition	Spec.	Unit
1	Rmin		0.045	Ω
2	Rmax		0.140	Ω
3	Post Trip R1max	Resistance measurement one hour after post trip	0.170	Ω
4	2X Rmin Tsw	2 times of minimum Resistance value of R/T testing	95 ± 15	°C
5	I-hold	Hold rated current 1800 second without trip, @ 6Vdc, 25°C	1.10	A
6	I-trip	Device must trip within 900 second under rated current, @ 6 Vdc, 25°C	2.20	A
7	TTT	@ 6Vdc/ 5.5A, 25°C	4.0	Sec.
8	Cycle Life	6Vdc/ 40A, 100cycles	No visible damage or burning	N/A
9	Trip Endurance	6Vdc/ 40A, hold under 24 hours	No visible damage or burning	N/A
10	Power dissipation	@ 6Vdc/ 5.50A, 25°C	0.54 TYP	Watts

## 7. Reliability Requirement

NO.	Item	Test Condition	Spec.
1	Humidity Aging	85°C, 85% R.H., 1000 Hours	Rmin. < R < R1max.
2	Passive Aging	85°C, 1000 Hours	Rmin. < R < R1max.
3	Thermal Shock	-40°C ~ 85°C, 10 times	Rmin. < R < R1max.
4	Solderability	245°C ± 5°C, 5sec	>95% coverage
5	Resistance to Solvents	MIL-STD-202, Method 215	Marking Still legible

## 8. Package information

- Bulk: 1000 pcs/bag
- Tape and Reel : 2000 pcs/reel
- Tape and Reel Specifications: Devices taped using EIA468-B/IEC286-2 standards.

## 9. Others

- Agency Approvals: TUV
- Regulation/Standard: RoHS, Reach, HF
- Cured, flame retardant epoxy polymer insulating material meets UL94V-0 requirements

### Warning:

1. Use PPTC beyond the maximum ratings or improper use may result in device damage and possible electrical arcing and flame.
2. PPTC are intended for protection against occasional over current or over temperature fault conditions and should not be used when repeated fault conditions or prolonged trip events are anticipated.
3. Device performance can be impacted negatively if devices are handled in a manner inconsistent with recommended electronic, thermal and mechanical procedures for electronic components.
4. Use PPTC with a large inductance in circuit will generate a circuit voltage (L di/dt) above the rated voltage of the PPTC.

POLYMER PTC  
RESETTABLE FUSE



Part Number: TRA110-1/6

Model	a	b	c1	c2	d	e	f	g
	Nor.	Nor.	Nor.	Nor.	Nor.	Nor.	Typ.	Nor.
TRA110-1/6	18.5±1.0	5.0±0.5	12.7±0.2	12.7±1.0	3.85±0.2	4.0±0.3	12	18±1

