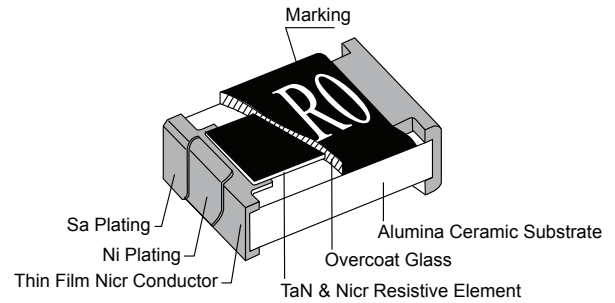


# FAF Thin Film Lead Free Type High Precision Chip Resistors

## Features

- Metal Thin Film TaN, Ni/Cr,...etc. Resistive element.
- Tolerance 1%, 0.5%, 0.25%, 0.1%.
- Compatible with both flow soldering and reflow soldering.
- Suitable for Lead Free soldering.
- RoHS compliant & Halogen Free.



## Part Number

Type	Size	Tolerance	Packing	Power	-	Marking	TCR
<b>FAF</b> Thin Film	<b>02:</b> 0402	<b>B:</b> $\pm 0.10\%$	<b>0402~1210</b>	<b>Standard type</b>		<b>4-Digits</b> 1R00=1 $\Omega$ 3302=33K $\Omega$ 51R0=51 $\Omega$	<b>W:</b> 5PPM <b>V:</b> 10PPM <b>S:</b> 15PPM <b>Q:</b> 25PPM <b>P:</b> 50PPM
	<b>03:</b> 0603	<b>C:</b> $\pm 0.25\%$	Paper tape:	Fill in:			
	<b>05:</b> 0805	<b>D:</b> $\pm 0.50\%$	<b>T:</b> 5 Kpcs	" — "			
	<b>06:</b> 1206	<b>F:</b> $\pm 1.00\%$	<b>V:</b> 10Kpcs	<b>* Function type</b>			
	<b>12:</b> 1210			Fill in:			
	<b>20:</b> 2010		<b>2010/2512</b>	<b>A:</b> 1/16W			
	<b>25:</b> 2512		Plastic tape:	<b>B:</b> 1/10W			
			<b>C:</b> 1/8W				
			<b>D:</b> 1/4W				
			<b>E:</b> 1/3W				
			<b>F:</b> 1/2W				
			<b>G:</b> 3/4W				
			<b>H:</b> 1W				
				<b>0603:</b>			
				<b>3-Digits</b>			
				01C=1K $\Omega$			
				Refer to.			
				Table 1.			

- FAF06FT-1001Q** • EX. Standard type, 1206,  $\pm 1\%$ , Paper 5Kpcs, 1/8W, 1K $\Omega$ , 25ppm.  
**FAF03BTB01BV** • EX. Narrow TCR type, 0603,  $\pm 0.1\%$ , Paper 5Kpcs, 1/10W, 1K $\Omega$ , 10ppm.

## Rating

### General High Precision:

Standard Type	Power Rating @ 70°C	Max. RCWV (V)	Max. Overload Voltage (V)	Temperature Coefficient of Resistance (ppm/°C)	Resistance Tolerance (%)	Resistance Range		Standard Resistance Values
						Min.	Max.	
0402	1/16W	25	50	$\pm 25$ $\pm 50$	$\pm 0.1\%$ $\pm 0.25\%$ $\pm 0.50\%$ $\pm 1.0\%$	10 $\Omega$	100K $\Omega$	E24 E96
0603	1/16W	50	100			4.7 $\Omega$	680K $\Omega$	
0805	1/10W	100	200			4.7 $\Omega$	1M $\Omega$	
1206	1/8W	150	300			4.7 $\Omega$	1M $\Omega$	
1210	1/4W	200	400			10 $\Omega$	1M $\Omega$	
2010	1/2W	200	400			10 $\Omega$	1M $\Omega$	
2512	3/4W	200	400			10 $\Omega$	1M $\Omega$	

**Rating**

**Power High Precision:**

Power Enhance Type*	Power Rating @ 70°C	Max. RCWV (V)	Max. Overload Voltage (V)	Temperature Coefficient of Resistance (ppm/°C)	Resistance Tolerance (%)	Resistance Range		Standard Resistance Values
						Min.	Max.	
0603	1/10W	75	150	±50	±0.1% ±0.25% ±0.50% ±1.0%	4.7Ω	680KΩ	E24 E96
0805	1/8W	150	300			4.7Ω	1MΩ	
1206	1/4W	200	400			4.7Ω	1MΩ	
1210	1/3W	200	400			10Ω	1MΩ	
2010	3/4W	200	400			10Ω	1MΩ	
2512	1W	200	400			10Ω	1MΩ	

**Special TCR High Precision:**

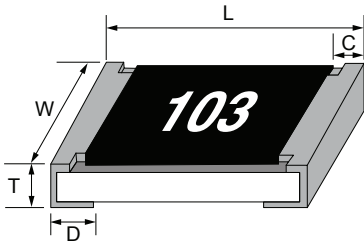
Narrow TCR Type*	Power Rating @ 70°C	Max. RCWV (V)	Max. Overload Voltage (V)	Temperature Coefficient of Resistance (ppm/°C)	Resistance Tolerance (%)	Resistance Range		Standard Resistance Values
						Min.	Max.	
0402	1/16W	25	50	±15	±0.1% ±0.25% ±0.50%	100Ω	20KΩ	E24 E96
0603	1/10W	50	100			100Ω	100KΩ	
0805	1/8W	100	200			100Ω	200KΩ	
1206	1/8W	150	300			100Ω	200KΩ	
0402	1/16W	25	50	±10	±0.1% ±0.25% ±0.50%	25Ω	20KΩ	E24 E96
0603	1/10W	50	100			25Ω	100KΩ	
0805	1/8W	100	200			25Ω	200KΩ	
1206	1/8W	150	300			25Ω	300KΩ	

**Ultra TCR High Precision:**

Narrow TCR Type*	Power Rating @ 70°C	Max. RCWV (V)	Max. Overload Voltage (V)	Temperature Coefficient of Resistance (ppm/°C)	Resistance Tolerance (%)	Resistance Range		Standard Resistance Values
						Min.	Max.	
0402	1/16W	25	50	±5	±0.1% ±0.25% ±0.50%	25Ω	8KΩ	E24 E96
0603	1/10W	50	100			25Ω	40KΩ	
0805	1/8W	100	200			25Ω	80KΩ	
1206	1/8W	150	300			25Ω	120KΩ	

# FAF Thin Film Lead Free Type High Precision Chip Resistors

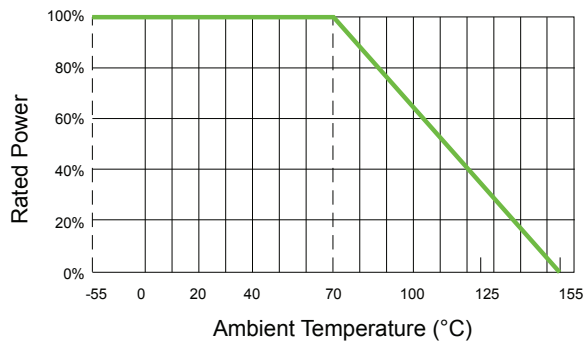
## Dimension and Construction



unit: mm

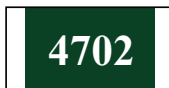
Type	L	W	C	D	T
0402	1.00 ± 0.05	0.50 ± 0.05	0.20 ± 0.10	0.25 ± 0.10	0.35 ± 0.05
0603	1.55 ± 0.10	0.80 ± 0.10	0.25 ± 0.15	0.30 ± 0.15	0.45 ± 0.15
0805	2.00 ± 0.10	1.25 ± 0.10	0.25 ± 0.20	0.40 ± 0.20	0.50 ± 0.15
1206	3.10 ± 0.10	1.60 ± 0.10	0.45 ± 0.20	0.45 ± 0.20	0.60 ± 0.15
1210	3.10 ± 0.10	2.60 ± 0.15	0.50 ± 0.20	0.50 ± 0.20	0.55 ± 0.10
2010	5.00 ± 0.10	2.50 ± 0.15	0.60 ± 0.20	0.50 ± 0.20	0.55 ± 0.10
2512	6.35 ± 0.10	3.20 ± 0.15	0.60 ± 0.20	0.50 ± 0.20	0.55 ± 0.10

## Power Derating Curve



## Resistance Marking

### E 24 series



4 digit marking for 0805, 1206, 1210, 2010, 2512  
examples: **4702**      $470 \times 10^2 = 47K\Omega$



3 digit marking for 0603  
examples: **473**      $47 \times 10^3 = 47K\Omega$

### E 96 series



4 digit marking for 0805, 1206, 1210, 2010, 2512  
examples: **1542**      $154 \times 10^2 = 15.4K\Omega$



3 digit included two numbers and one letter for 0603  
examples: **02C**      $102 \times 10^2 = 10.2K\Omega$

• No marking code for 0402 size