

CTTFR Series

FEATURES

- Thin Film Passivated NiCr Resistor
- Very Tight Tolerance from $\pm 0.01\%$ ~1%
- Extremely Low TCR from ± 5 ~ ± 50 PPM/ $^{\circ}\text{C}$
- Wide R-Value Range

APPLICATIONS

- Medical Equipment
- Testing / Measurement Equipment
- Consumer Product
- Printer Equipment
- Automatic Equipment Controller
- Converters
- Communication Device, Cell phone, GPS, PDA

PART NUMBERING

CTTFR	0402	T	T	D		1000
①	②	③	④	⑤	⑥	⑦

1. Product Type

Product Type	
CTTFR	Thin Film Precision Chip Resistor

2. Dimensions (LxW)

EIA	Dimensions(LxW)
0402	1.00x0.50mm
0603	1.60x0.80mm
0805	2.00x1.25mm
1206	3.00x1.50mm

3. Resistance Tolerance

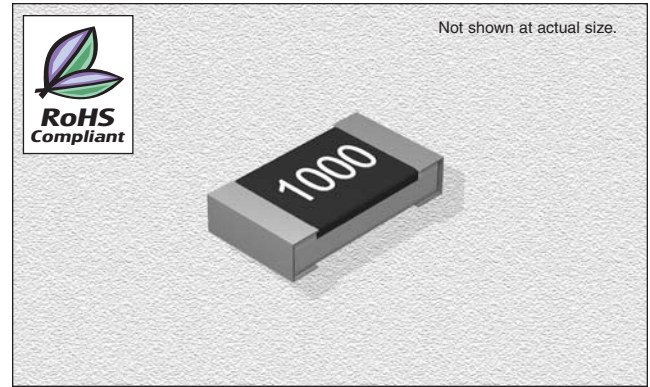
Codes	Resistance Tolerance
T	$\pm 0.01\%$
B	$\pm 0.10\%$
C	$\pm 0.25\%$
D	$\pm 0.50\%$
F	$\pm 1.00\%$

4. Packaging

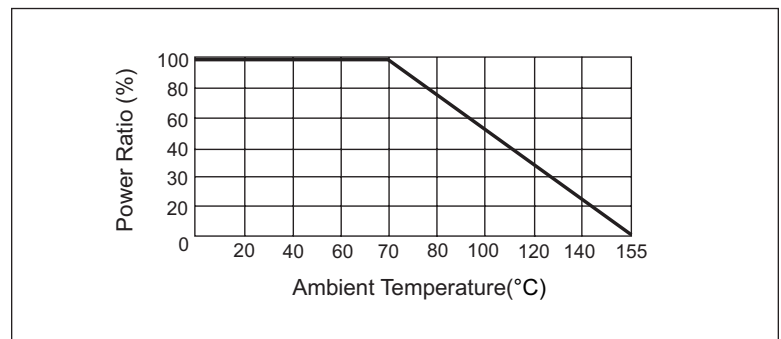
Codes	Type
T	Tape & Reel
B	Bulk

Tape & Reel QTY's

CTTFR0402 = 10,000pcs
 CTTFR0603 = 5,000pcs
 CTTFR0805 = 5,000pcs
 CTTFR1206 = 5,000pcs



DERATING CURVE



5. TCR

Codes	Type
S	± 5 PPM/ $^{\circ}\text{C}$
B	± 10 PPM/ $^{\circ}\text{C}$
N	± 15 PPM/ $^{\circ}\text{C}$
C	± 25 PPM/ $^{\circ}\text{C}$
D	± 50 PPM/ $^{\circ}\text{C}$

6. High Power Rating

Codes	Power Rating
	Standard / Special
V	1/4W
W	1/8W
X	1/10W

7. Resistance

Codes	Type
1000	100 Ω
2201	2200 Ω
1002	10000 Ω
4992	49900 Ω
1003	100000 Ω

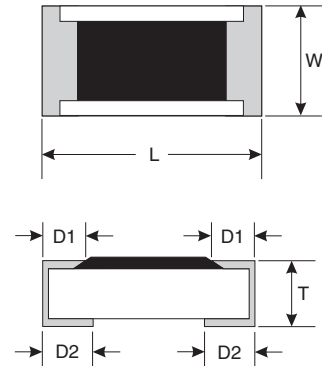
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PHYSICAL DIMENSIONS

Unit: mm

Type	L	W	T	D1	D2
CTTFR0402	1.00±0.05	0.50±0.05	0.30±0.05	0.20±0.10	0.20±0.10
CTTFR0603	1.55±0.10	0.80±0.10	0.45±0.10	0.30±0.20	0.30±0.20
CTTFR0805	2.00±0.15	1.25±0.15	0.55±0.10	0.30±0.20	0.40±0.25
CTTFR1206	3.05±0.15	1.55±0.15	0.55±0.10	0.42±0.20	0.35±0.25



STANDARD ELECTRICAL SPECIFICATIONS

Type	Power Rating at 70°C	Operating Temp. Range	Max. Operating Voltage	Max. Overloading Voltage	Resistance Tolerance (±)	Resistance Range	TCR (±PPM/°C)
CTTFR0402	1/16W	-55°C to +155°C	25V	50V	0.01%, 0.05%, 0.1%, 0.25%, 0.5%	50Ω~2KΩ	5
					0.01%, 0.05%, 0.1%, 0.25%, 0.5%	50Ω~12KΩ	10 , 15
					0.01%, 0.05%	50Ω~12KΩ	25 , 50
					0.1%, 0.25%, 0.5%, 1%	10Ω~100KΩ	25 , 50
CTTFR0603	1/16W	-55°C to +155°C	50V	100V	0.01%, 0.05%, 0.1%, 0.25%, 0.5%	50Ω~8KΩ	5
					0.01%, 0.05%, 0.1%, 0.25%, 0.5%	25Ω~100KΩ	10 , 15
					0.01%	25Ω~100KΩ	25 , 50
					0.05%	4.7Ω~150KΩ	25 , 50
					0.1%, 0.25%, 0.5%, 1%	4.7Ω~402KΩ	25 , 50
					0.25%, 0.5%, 1%	2Ω~4.6Ω	25 , 50
CTTFR0805	1/10W	-55°C to +155°C	100V	200V	0.01%, 0.05%, 0.1%, 0.25%, 0.5%	50Ω~16KΩ	5
					0.01%, 0.05%, 0.1%, 0.25%, 0.5%	25Ω~200KΩ	10 , 15
					0.01%	25Ω~200KΩ	25 , 50
					0.05%	4.7Ω~500KΩ	25 , 50
					0.1%, 0.25%, 0.5%, 1%	4.7Ω~1MΩ	25 , 50
					0.25%, 0.5%, 1%	1Ω~4.6Ω	25 , 50
CTTFR1206	1/8W	-55°C to +155°C	150V	300V	0.01%, 0.05%, 0.1%, 0.25%, 0.5%	50Ω~30KΩ	5
					0.01%, 0.05%, 0.1%, 0.25%, 0.5%	25Ω~500KΩ	10 , 15
					0.01%	25Ω~500KΩ	25 , 50
					0.05%	4.7Ω~1MΩ	25 , 50
					0.1%, 0.25%, 0.5%, 1%	4.7Ω~1MΩ	25 , 50
					0.25%, 0.5%, 1%	1Ω~4.6Ω	25 , 50
					1MΩ~2MΩ		

01.23.07