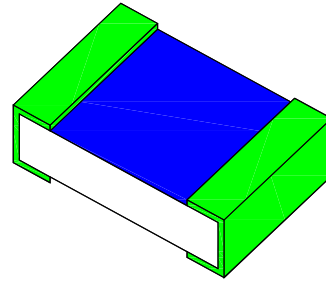
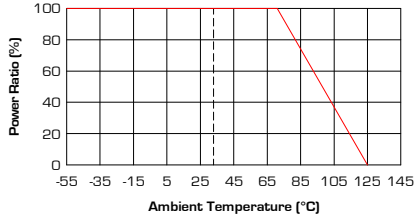
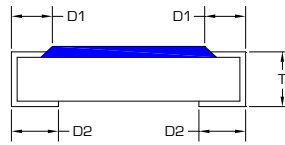
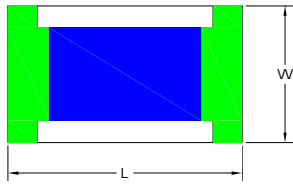


**HIGH VOLTAGE CHIP RESISTOR - THC SERIES**
**FEATURES:**

Highly reliable multilayer electrode construction  
Excellent performance at high voltage


**DERATING CURVE**

**DIMENSIONS**


CODES	L	W	T	D1	D2
THC12	6.35±0.20	3.20±0.15	0.55±0.10	0.60±0.25	0.50±0.20
THC10	5.00±0.20	2.50±0.15	0.55±0.10	0.60±0.25	0.50±0.20
THC06	3.10±0.10	1.55±0.10	0.55±0.10	0.50±0.25	0.50±0.20
THC05	2.00±0.10	1.25±0.10	0.50±0.10	0.35±0.20	0.40±0.20
THC03	1.60±0.10	0.80±0.10	0.45±0.10	0.30±0.20	0.30±0.20
THC02	1.00±0.05	0.50±0.05	0.35±0.05	0.20±0.10	0.20±0.10

**PART NUMBERING**

THC	06	270K	5	200
①	②	③	④	⑤

**① Product Type**

Product Type	
THC	High Voltage Chip Resistors

**④ Resistance Tolerance**

Codes	Resistance Tolerance
1	±1%
5	±5%

**② Dimensions (L x W)**

Codes	Dimensions (L x W)	EIA
12	6.35x3.20mm	2512
10	5.00x2.50mm	2010
06	3.10x1.55mm	1206
05	2.00x1.25mm	0805
03	1.60x0.80mm	0603
02	1.00x0.50mm	0402

**⑤ TCR**

Codes	Type
100	±100PPM/°C
200	±200PPM/°C

**③ Resistance**

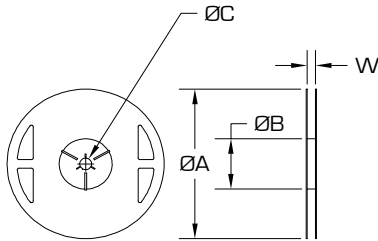
Codes	Type
10	10Ω
10R5	10.5Ω
100	100Ω
500	500Ω
1K	1000Ω
100K	100,000Ω
270K	270,000Ω
500K	500,000Ω
1M	1,000KΩ
1R02M	1,020KΩ
10M	10,000KΩ

**ELECTRICAL CHARACTERISTICS SPECIFICATIONS**

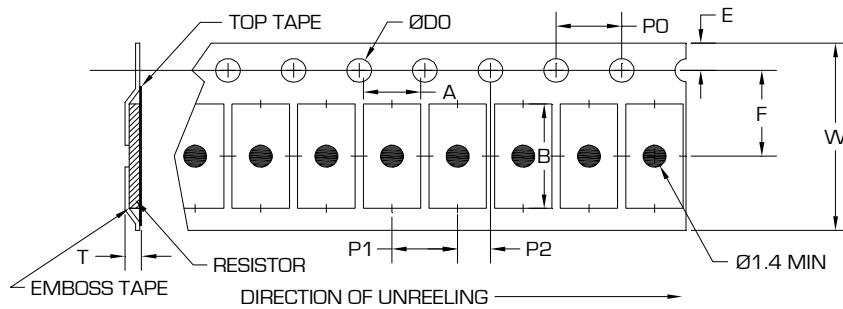
Type (Item)	Power Rating at 70°C	Operating Temperature Range	Max. Operating Voltage	Max. Overload Voltage	Resistance Tolerance	Resistance Range (E24/E96)	TCR (PPM/°C)
THC12 (2512)	1W	-55 to +125°C	500V	1000V	±1.0% ±5.0%	10Ω-1MΩ 1.02MΩ-10MΩ	±100 ±200
TH10 (2010)	3/4W	-55 to +125°C	400V	800V			
THC6 (1206)	1/4W	-55 to +125°C	400V	800V			
THC5 (0805)	1/8W	-55 to +125°C	300V	600V			
THC3 (0603)	1/10W	-55 to +125°C	100V	200V			
THC2 (0402)	1/16W	-55 to +125°C	100V	200V			

**PACKAGING**
**Reel Specifications & Packaging Quantity**

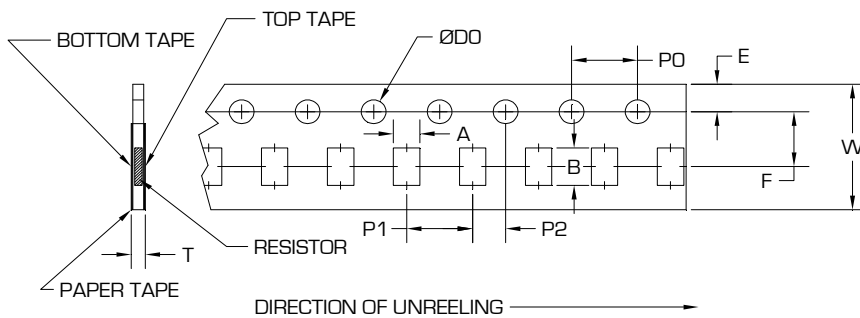
Series	ØA	ØB	ØC	W	T	Paper Tape [EA]	Emboss Plastic Tape [EA]
THC12	178±1.0	60.0±1.0	13.5±0.7	13.5±1.0	15.5±1.0	NA	4,000
THC10	178±1.0	60.0±1.0	13.5±0.7	13.5±1.0	15.5±1.0	NA	4,000
THC06	178±1.0	60.0±1.0	13.5±0.7	9.5±1.0	11.5±1.0	5,000	NA
THC05	178±1.0	60.0±1.0	13.5±0.7	9.5±1.0	11.5±1.0	5,000	NA
THC03	178±1.0	60.0±1.0	13.5±0.7	9.5±1.0	11.5±1.0	5,000	NA
THC02	178±1.0	60.0±1.0	13.5±0.7	9.5±1.0	11.5±1.0	10,000	NA


**Emboss Plastic Tape Specifications**

Series	A	B	W	E	F	P0	P1	P2	ØD0	T
THC12	3.50±0.2	6.70±0.2	12±0.3	1.75±0.1	5.5±0.05	4.0±0.1	4.0±0.10	2.0±0.05	1.5+0.1/-0	1.00±0.20
THC10	2.85±0.2	5.50±0.2	12±0.3	1.75±0.1	5.5±0.05	4.0±0.1	4.0±0.10	2.0±0.05	1.5+0.1/-0	1.00±0.20


**Paper Tape Specifications**

Series	A	B	W	E	F	P0	P1	P2	ØD0	T
THC06	1.90±0.1	3.50±0.2	8.0±0.2	1.75±0.1	3.5±0.05	3.5±0.05	4.0±0.05	2.0±0.05	1.5+0.1/-0	0.85±0.1
THC05	1.60±0.1	2.40±0.2	8.0±0.2	1.75±0.1	3.5±0.05	3.5±0.05	4.0±0.05	2.0±0.05	1.5+0.1/-0	0.85±0.1
THC03	1.10±0.1	1.90±0.1	8.0±0.2	1.75±0.1	3.5±0.05	3.5±0.05	4.0±0.05	2.0±0.05	1.5+0.1/-0	0.70±0.1
THC02	0.65±0.1	1.15±0.1	8.0±0.2	1.75±0.1	3.5±0.05	3.5±0.05	2.0±0.05	2.0±0.05	1.5+0.1/-0	0.45±0.1


**ENVIRONMENTAL CHARACTERISTICS**

**ENVIRONMENTAL CHARACTERISTICS**

Item		Specification		Test Method
1	Temperature Coefficient Of Resistance (T.C.R.)	Within the specification		JIS C 5201 4.8 IEC 60115-1 4.8 -55°C to +125°C, 20°C is the reference temperature
2	Short Time Overload	±(1.0%+0.05Ω)	±(2.0%+0.05Ω)	JIS C 5201 4.13 IEC 60115-1 4.13 2.5 times RCWV or Max. overload voltage for 5 seconds
3	Insulation Resistance	≥10G		JIS C 5201 4.6 IEC 60115-1 4.6 Max. overload voltage for 1 minute
4	Voltage Proof	No breakdown or flashover		JIS C 5201 4.7 IEC 60115-1 4.7 1.42 times RCWV (RMS) for 1 minute
5	Substrate Bending Test	±(1.0%+0.05Ω)	±(1.0%+0.05Ω)	JIS C 5201 4.33 IEC 60115-1 4.33 Bending once for 5 seconds with 3mm 2010/2512 size: 2mm
6	Resistance to Soldering Heat	±(0.5%+0.05Ω)	±(1.0%+0.05Ω)	JIS C 5201 4.18 IEC 60115-1 4.18 260±5°C for 10 seconds
7	Leaching	Individual Leaching Area ≤ 5% Total Leaching Area ≤ 10%		JIS C 5201 4.18 IEC 60068-2-58 8.2.1 260±5°C for 30 seconds
8	Solderability	>95% coverage		JIS C 5201 4.17 IEC 60115-1 4.17 245±5°C for 3 seconds
9	Endurance at Upper Category Temperature	±(1.0%+0.05Ω)	±(1.5%+0.10Ω)	JIS C 5201 4.23 IEC 60115-1 2.23.2 at +125°C for 1000 hrs.
10	Rapid Change of Temperature	±(0.5%+0.05Ω)	±(1.0%+0.05Ω)	JIS C 5201 4.19 IEC 60115-1 4.19 -55°C to +125°C, 5 cycles
11	Damp Heat with Load	±(2.0%+0.10Ω)	±(3.0%+0.10Ω)	JIS 5201 4.24 40±2°C, 90-95% R.H. or Max. working voltage for 1000 hrs. with 1.5 hrs. "ON" and 0.5 hr. "OFF"
12	Endurance	±(2.0%+0.10Ω)	±(3.0%+0.10Ω)	JIS C 5201 4.25 IEC 60115-1 4.25.1 70±2°C, or Max. working voltage for 1000 hrs. with 1.5 hrs. "ON" and 0.5 hr. "OFF"

\* Storage Temperature: 25±3°C; Humidity<80%RH