

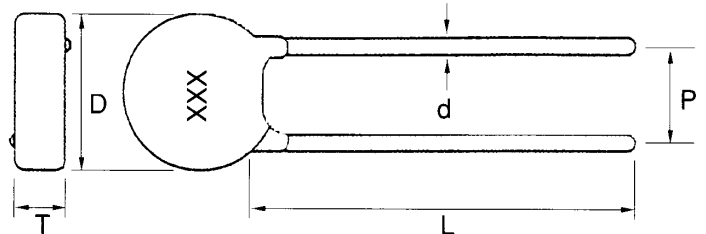
ECT Series — 3 φ Radius Configuration Thermistor

★ Part Number System

ECT — 103 J
 ① ② ③

- ① 3 φ Radius Configuration Thermistor
- ② Resistance at 25°C
103 = 10 × 10³ Ω
- ③ Resistance Tolerance
F = 1%, G = 2%, H = 3%
J = 5%, K = 10%, L = 15%

★ Outline Drawing and Dimension



Disc	D (mm)	L (mm)
3 φ	4.5 Max.	31 Min
d (mm)	P (mm)	T (mm)
0.5 ± 0.02	2.5 ± 0.5	5 Max.

★ Characteristics

- * Resistance Tolerance
- * B Constant Tolerance
- * Operation Temperature Range
- * Max power at 25°C on PCB
- * Rated Temperature
- * Thermal Dissipation Constant
- * Thermal Time Constant

± 1 ~ ± 15	%
± 1 ~ ± 5	%
-40 ~ +125	°C
650	mW
Tn	25 °C
≐	6.5 mW/°C
≐	14 sec.

Part No.	No load Resistance at 25°C (Ω)	Max. Permissible current at 25°C (mA)	Max. Working current (mA)	B _{25/85} Constant (K)	Part No.	No load Resistance at 25°C (Ω)	Max. Permissible current at 25°C (mA)	Max. Working current (mA)	B _{25/85} Constant (K)
ECT-015X	15	320	80	2700	ECT-103X	10K	16	4.0	4040
ECT-020X	20	280	70	2700	ECT-103B1X	10K	16	4.0	3977
ECT-045X	45	200	50	2900	ECT-123X	12K	14	3.6	4040
ECT-085X	85	148	37	3000	ECT-153X	15K	13	3.3	4150
ECT-101X	100	130	34	3100	ECT-203X	20K	11	2.8	4200
ECT-201X	200	110	28	3200	ECT-223X	22K	11	2.7	4200
ECT-251X	250	102	26	3200	ECT-253X	25K	10	2.5	4200
ECT-301X	300	96	24	3300	ECT-303X	30K	9	2.3	4250
ECT-501X	500	76	19	3400	ECT-333X	33K	9	2.2	4250
ECT-102X	1K	60	15	3800	ECT-473X	47K	7	1.8	4300
ECT-152X	1.5K	44	11	3850	ECT-503X	50K	7	1.8	4300
ECT-202X	2K	40	10	3900	ECT-104X	100K	5	1.2	4400
ECT-252X	2.5K	34	8.5	3950	ECT-154X	150K	4	1.0	4450
ECT-272X	2.7K	32	8	3950	ECT-204X	200K	3.6	0.9	4500
ECT-302X	3K	31	8	3950	ECT-224X	220K	3.4	0.8	4500
ECT-472X	4.7K	21	5.2	4050	ECT-474X	470K	2.4	0.6	4700
ECT-502X	5K	20	5	4050	ECT-504X	500K	2.3	0.6	4700
ECT-602X	6K	18	4.7	4060	ECT-105X	1M	1.6	0.4	4730
ECT-682X	6.8K	16	4.5	4080					

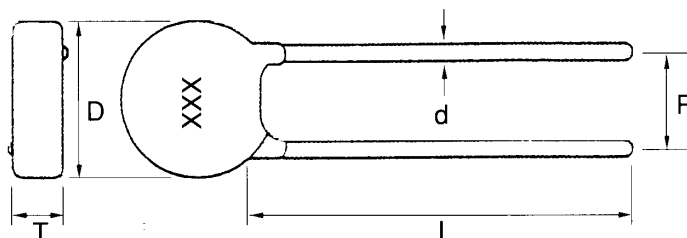
● TCT Series — 5 φ Radius Configuration Thermistor

★ Part Number System

TCT — 103 J
 ① ② ③

- ① 5 φ Radius Configuration Thermistor
- ② Resistance at 25°C
103 = 10 × 10³ Ω
- ③ Resistance Tolerance
F = 1%, G = 2%, H = 3%
J = 5%, K = 10%, L = 15%

★ Outline Drawing and Dimension



Disc	D (mm)	L (mm)
5 φ	6.5 Max.	31 Min
d (mm)	P (mm)	T (mm)
0.5 ± 0.02	3.5 ± 0.5	5 Max.

★ Characteristics

- * Resistance Tolerance
- * B Constant Tolerance
- * Operation Temperature Range
- * Max power at 25°C on PCB
- * Rated Temperature
- * Thermal Dissipation Constant
- * Thermal Time Constant

± 1 ~ ± 15	%
± 1 ~ ± 5	%
-40 ~ +125	°C
850	mW
Tn 25	°C
≐ 8.5	mW/°C
≐ 20	sec.

Part No.	No load Resistance at 25°C (Ω)	Max. Permissible current at 25°C (mA)	Max. Working current (mA)	B _{25/85} Constant (K)	Part No.	No load Resistance at 25°C (Ω)	Max. Permissible current at 25°C (mA)	Max. Working current (mA)	B _{25/85} Constant (K)
TCT-015X	15	250	125	2800	TCT-302X	3K	50	10	4050
TCT-045X	45	250	100	3100	TCT-502X	5K	45	10	4100
TCT-085X	85	250	50	3200	TCT-103X	10K	30	9	4150
TCT-101X	100	200	50	3200	TCT-153X	15K	25	9	4250
TCT-201X	200	200	40	3500	TCT-203X	20K	25	8.5	4400
TCT-301X	300	150	35	3500	TCT-303X	30K	20	7	4400
TCT-501X	500	100	30	3800	TCT-503X	50K	20	5.5	4400
TCT-102X	1K	80	20	3950	TCT-104X	100K	15	4	4400
TCT-152X	1.5K	60	14	3950	TCT-154X	150K	6.4	3.2	4400
TCT-202X	2K	60	14	4000	TCT-504X	500K	3	0.8	4700

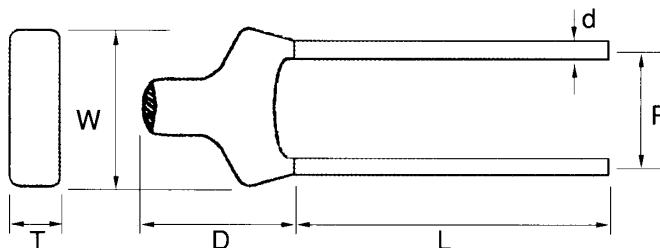
LCT Series — SMD with Lead Type

★ Part Number System

LCT — 103 Y J
 ① ② ③ ④

- ① Product Identifier
- ② Resistance at 25°C
103 = $10 \times 10^3 \Omega$
- ③ Elements Variety
X : Chip 0603 , Y : Chip 0805
Z : Chip 1206
- ④ Resistance Tolerance
F = 1% , G = 2% , H = 3%
J = 5% , K = 10% , L = 15%

★ Outline Drawing and Dimension



W (mm)	D (mm)	L (mm)
4 Max.	4 Max.	31 Min
d (mm)	P (mm)	T (mm)
0.5 ± 0.02	2.5 ± 0.5	2.5 Max.

★ Characteristics

- * Resistance Tolerance
- * B Constant Tolerance
- * Operation Temperature Range
- * Max power at 25°C on PCB
- * Rated Temperature
- * Thermal Dissipation Constant
- * Thermal Time Constant

± 1 ~ ± 15	%
± 1 ~ ± 5	%
-40 ~ +125	°C
550	mW
Tn	25 °C
≡	5.5 mW/°C
≡	6 sec.

Part No.	No load Resistance at 25°C (Ω)	Max. Permissible current at 25°C (mA)	Max. Working current (mA)	B _{25/85} Constant (K)	Part No.	No load Resistance at 25°C (Ω)	Max. Permissible current at 25°C (mA)	Max. Working current (mA)	B _{25/85} Constant (K)
LCT-201Yx	200	80	12	2700	LCT-153Yx	15K	14	1.5	3730
LCT-471Yx	470	56	8	3000	LCT-203Yx	20K	12	1.2	3900
LCT-102Yx	1K	42	6	3100	LCT-303Yx	30K	10	1.0	3900
LCT-152Yx	1.5K	48	4.5	3150	LCT-333Yx	33K	10	1.0	3960
LCT-202Yx	2K	40	3.6	3200	LCT-473Yx	47K	9.6	0.9	4000
LCT-332Yx	3.3K	34	3.2	3300	LCT-503Yx	50K	9.6	0.9	4000
LCT-502Yx	5K	22	2.4	3450	LCT-104Yx	100K	7.2	0.6	4100
LCT-103Yx	10K	16	2	3550	LCT-124Yx	120K	6.7	0.6	4100
LCT-103B1Yx	10K	16	2	3730	LCT-154Yx	150K	5.8	0.5	4100
LCT-103B2Yx	10K	16	2	3370	LCT-204Yx	200K	4.8	0.4	4100
LCT-103B3Yx	10K	16	2	3435	LCT-474Yx	470K	2.8	0.3	4350

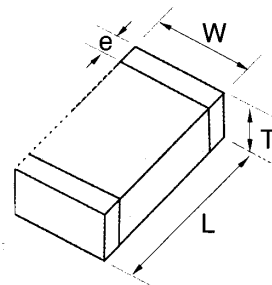
● SCT Series — SMD CHIP 0805, 0603 PRODUCT SERIES

★ Part Number System

$\frac{\text{SCT}}{\text{①}} - \frac{103}{\text{②}} \frac{\text{Y}}{\text{③}} \frac{\text{J}}{\text{④}}$

- ① Product Identifier
- ② Resistance at 25°C
103 = $10 \times 10^3 \Omega$
- ③ Elements Variety
Y : Chip 0805 , X : Chip 0603
- ④ Resistance Tolerance
F = 1% , G = 2% , H = 3%
J = 5% , K = 10%

★ Outline Drawing and Dimension



Code Type	L (mm)	W (mm)	T (mm)	e (mm)
0805	2.0 ± 0.2	1.25 ± 0.2	1.2 Max	0.5 ± 0.25
0603	1.6 ± 0.2	0.8 ± 0.2	1.1 Max	0.5 ± 0.25

★ Characteristics

* Resistance Tolerance	$\pm 1 \sim \pm 15$	%	
* B Constant Tolerance	$\pm 1 \sim \pm 5$	%	
* Operation Temperature Range	$-40 \sim +125$	°C	
* Max power at 25°C on PCB (0805)	500	mW	
(0603)	230	mW	
* Rated Temperature	Tn	25	°C
* Thermal Dissipation Constant (0805)	\cong	5	mW/°C
(0603)	\cong	2.3	mW/°C
* Thermal Time Constant (0805)	\cong	4	sec.
(0603)	\cong	2	sec.

★ 0805 SPECIFICATIONS

Part No.	No load Resistance at 25°C (Ω)	Max. Permissible current at 25°C (mA)	Max. Working current (mA)	B _{25/85} Constant (K)	Part No.	No load Resistance at 25°C (Ω)	Max. Permissible current at 25°C (mA)	Max. Working current (mA)	B _{25/85} Constant (K)
SCT-201Yx	200	100	3	2700	SCT-153Yx	15K	17	0.36	3730
SCT-471Yx	470	70	2	3000	SCT-203Yx	20K	15	0.3	3900
SCT-102Yx	1K	53	1.5	3100	SCT-303Yx	30K	13	0.25	3900
SCT-152Yx	1.5K	60	1.1	3150	SCT-333Yx	33K	13	0.25	3960
SCT-202Yx	2K	50	0.9	3200	SCT-473Yx	47K	12	0.22	4000
SCT-332Yx	3.3K	42	0.8	3300	SCT-503Yx	50K	12	0.22	4000
SCT-502Yx	5K	27	0.6	3450	SCT-104Yx	100K	9	0.15	4100
SCT-103Yx	10K	20	0.5	3550	SCT-124Yx	120K	8.4	0.14	4100
SCT-103B1Yx	10K	20	0.5	3730	SCT-154Yx	150K	7.2	0.12	4100
SCT-103B2Yx	10K	20	0.5	3370	SCT-204Yx	200K	6	0.1	4100
SCT-103B3Yx	10K	20	0.5	3435	SCT-474Yx	470K	3.6	0.06	4350

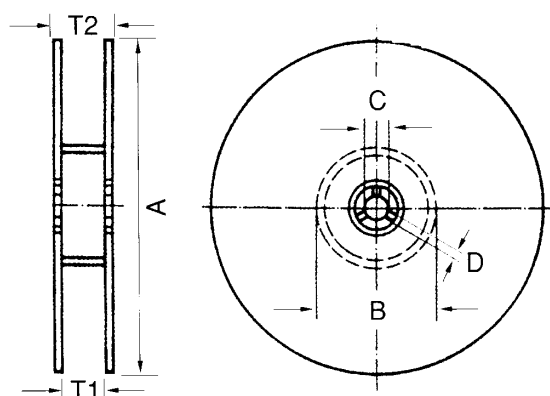
★ 0603 SPECIFICATIONS

Part No.	No load Resistance at 25°C (Ω)	Max. Permissible current at 25°C (mA)	Max. Working current (mA)	B _{25/85} Constant (K)	Part No.	No load Resistance at 25°C (Ω)	Max. Permissible current at 25°C (mA)	Max. Working current (mA)	B _{25/85} Constant (K)
SCT-202Xx	2K	47	0.85	3200	SCT-104Xx	100K	8.4	0.14	4100
SCT-103Xx	10K	18	0.45	3550	SCT-154Xx	150K	6.6	0.11	4050
SCT-303Xx	30K	12	0.22	3900	SCT-204Xx	200K	5.5	0.09	4100
SCT-473Xx	47K	11	0.2	4000	SCT-474Xx	470K	3.1	0.05	4350
SCT-503Xx	50K	11	0.2	4000					

● SMD TAPING AND PACKING

Many of the components presented in this data book are suitable for processing on automatic in-sertion or placement machines. These thermistors can be supplied on tape for easy handling by automatic systems. The individual modes of taping and packing will be described in the following.

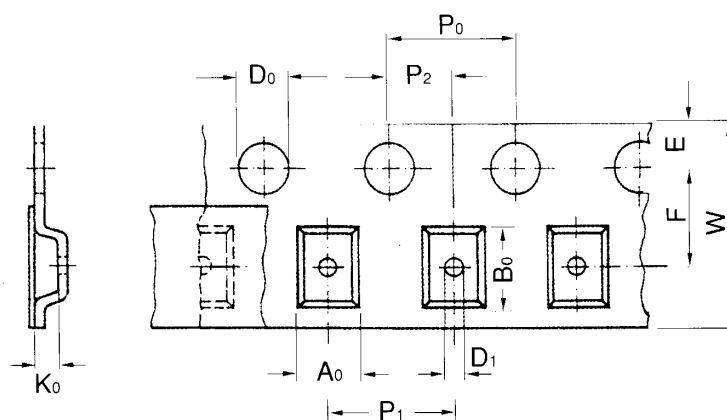
★ Reel packing



A (mm)	B (mm)	C (mm)
180 ± 2	62 ± 1.5	12.75 ± 0.2
D (mm)	T1 (mm)	T2 (mm)
2.1 ± 0.5	9 ± 0.3	11 ± 1.0

★ Taping of SMD

EIA	Symbol	Size (mm)	Range (mm)
0603	A ₀	1.02	±0.10
	B ₀	1.79	±0.10
	K ₀	0.95	±0.10
0805	A ₀	1.43	±0.10
	B ₀	2.24	±0.10
	K ₀	1.07	±0.10
1206	A ₀	1.88	±0.10
	B ₀	3.50	±0.10
	K ₀	1.27	±0.10



0603			0805			1206		
Symbol	Size (mm)	Range (mm)	Symbol	Size (mm)	Range (mm)	Symbol	Size (mm)	Range (mm)
W	8.00	±0.30	W	8.00	±0.30	W	8.00	±0.30
P ₁	4.00	±0.10	P ₁	4.00	±0.10	P ₁	4.00	±0.10
E	1.75	±0.10	E	1.75	±0.10	E	1.75	±0.10
F	3.50	±0.05	F	3.50	±0.05	F	3.50	±0.05
P ₂	2.00	±0.05	P ₂	2.00	±0.05	P ₂	2.00	±0.05
D ₀	1.50	±0.10/-0.0	D ₀	1.50	±0.10/-0.0	D ₀	1.50	±0.10/-0.0
D ₁	1.00	±0.25/-0.0	D ₁	1.00	±0.25/-0.0	D ₁	1.00	±0.25/-0.0
P ₀	4.00	±0.10	P ₀	4.00	±0.10	P ₀	4.00	±0.10
P _{0*10}	40.00	±0.20	P _{0*10}	40.00	±0.20	P _{0*10}	40.00	±0.20