

SMD NTC Thermistor

(ECTH Series)

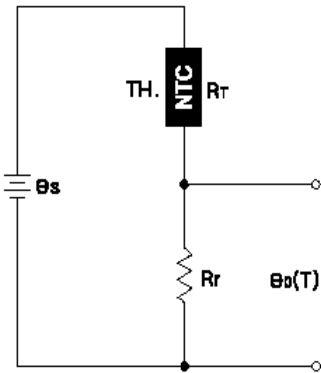


1 What is NTC Thermistor ?

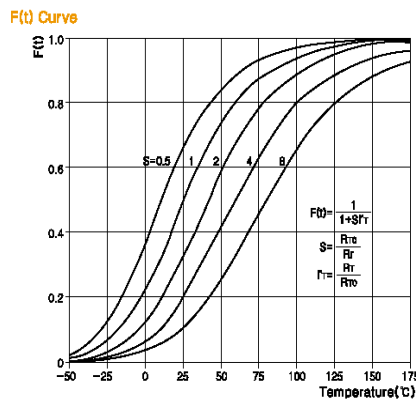
- Initial of Negative Temperature Coefficient of Thermal Resistor.
- Have a electrical characteristic of decreasing resistance with increasing of an ambient temperature, so called Semi-conductive Device of Metal Oxide.
- Protect the electronic equipment from caused by increasing temperature in an electronic circuit

2 Application of NTC Thermistor

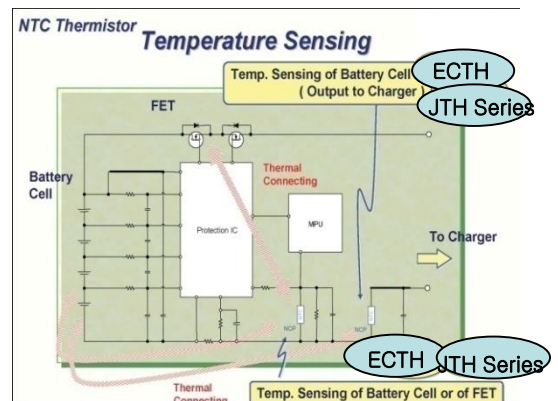
- Temperature Compensated Transistor , IC, TCXO, etc.
- Temperature Compensation of Battery Charger
- Temperature Compensation of LCD
- Car navigation system
- Medical Thermometer
- Computer Peripherals [CPU Battery, Hard/Floppy Disk] etc



Linear TH. Circuit



Linear TH. Output Characteristics.



Application example

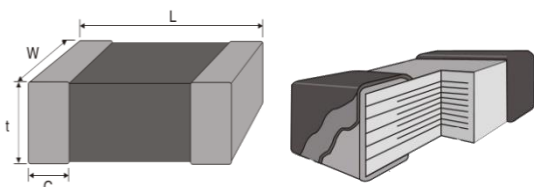
3 Order method :

ECTH
1608
08
103
F
3435
F
S
T

① Series	SMD NTC Thermistor ECTH Series
② Size(L×W)	0603, 1005, 1608, 2012
③ Thickness(T)	0.5, 0.8, .1.2
④ Resistance @25°C	103 = 10,000 Ω [= 10×10 ³ Ω]
⑤ R Tolerance	F: ±1% , G : ±2% , H : ±3% , J : ±5% , S : Special code
⑥ B(25/85)	3435K
⑦ B Tolerance	F: ±1% , G : ±2% , H : ±3%
⑧ Type	S: Pb free product
⑨ Packing	T : Paper carrier Tape & Plastic Reel , B : Bulk

4 Size & Dimension

Unit : mm



Type	L	W	t	C
0603	0.60 ± 0.03	0.30 ± 0.03	0.30 ± 0.03	0.15 ± 0.05
1005	1.00 ± 0.05	0.50 ± 0.05	0.50 ± 0.05	0.25 ± 0.10
1608	1.60 ± 0.05	0.80 ± 0.10	0.80 ± 0.10	0.40 ± 0.20
2012	2.00 ± 0.05	1.25 ± 0.20	0.80 ± 0.10	0.40 ± 0.20

5 SMD NTC Thermistor Series

► SMD NTC Thermistor ECTH Series

NO	Size [mm]	Electrical specifications						Part No.
		R _{25C} [Ω]	△R[%]	B _{25/85} (K)	△B[%]	δ(mW/°C)	τ(sec)	
1	0603	10,000	3	3435	3	1	3	ECTH060303 103H3435HST
2	0603	10,000	3	4100	3	1	3	ECTH060303 103H4100HST
3	0603	22,000	3	3435	3	1	3	ECTH060303 223H3435HST
4	0603	47,000	3	4050	3	1	3	ECTH060303 473H4050HST
5	0603	100,000	3	4250	3	1	3	ECTH060303 104H4250HST
6	0603	100,000	3	4485	3	1	3	ECTH060303 104H4485HST
7	1005	33	3	3250	3	1	3	ECTH100505 330H3250HST
8	1005	47	3	3250	3	1	3	ECTH100505 470H3250HST
9	1005	68	3	3250	3	1	3	ECTH100505 680H3250HST
10	1005	100	3	3250	3	1	3	ECTH100505 101H3250HST
11	1005	1,000	3	4100	3	1	3	ECTH100505 102H4100HST
12	1005	2,000	3	4100	3	1	3	ECTH100505 202H4100HST
13	1005	2,000	3	4520	3	1	3	ECTH100505 202H4520HST
14	1005	2,200	3	4100	3	1	3	ECTH100505 222H4100HST
15	1005	4,700	3	4100	3	1	3	ECTH100505 472H4100HST
16	1005	10,000	3	3435	3	1	3	ECTH100505 103H3435HST
17	1005	10,000	3	3830	3	1	3	ECTH100505 103H3830HST
18	1005	10,000	3	3950	3	1	3	ECTH100505 103H3950HST
19	1005	10,000	3	4100	3	1	3	ECTH100505 103H4100HST
20	1005	10,000	3	4550	3	1	3	ECTH100505 103H4550HST
21	1005	15,000	3	3920	3	1	3	ECTH100505 153H3920HST
22	1005	22,000	3	3800	3	1	3	ECTH100505 223H3800HST
23	1005	22,000	3	4550	3	1	3	ECTH100505 223H4550HST
24	1005	33,000	3	4050	3	1	3	ECTH100505 333H4050HST
25	1005	47,000	3	3920	3	1	3	ECTH100505 473H3920HST
26	1005	47,000	3	4050	3	1	3	ECTH100505 473H4050HST
27	1005	47,000	3	4550	3	1	3	ECTH100505 473H4550HST
28	1005	68,000	3	4150	3	1	3	ECTH100505 683H4150HST
29	1005	100,000	3	4050	3	1	3	ECTH100505 104H4050HST
30	1005	100,000	3	4600	3	1	3	ECTH100505 104H4600HST
31	1005	150,000	3	4050	3	1	3	ECTH100505 154H4050HST
32	1005	220,000	3	4600	3	1	3	ECTH100505 224H4600HST
33	1005	470,000	3	4050	3	1	3	ECTH100505 474H4050HST
34	1005	470,000	3	4650	3	1	3	ECTH100505 474H4650HST
35	1608	33	3	3200	3	2	5	ECTH160808 330H3200HST
36	1608	47	3	3200	3	2	5	ECTH160808 470H3200HST
37	1608	68	3	3200	3	2	5	ECTH160808 680H3200HST
38	1608	100	3	3250	3	2	5	ECTH160808 101H3250HST
39	1608	220	3	3250	3	2	5	ECTH160808 221H3250HST
40	1608	570	3	3250	3	2	5	ECTH160808 571H3250HST
41	1608	1,000	3	4150	3	2	5	ECTH160808 102H4150HST
42	1608	2,000	3	4150	3	2	5	ECTH160808 202H4150HST
43	1608	3,000	3	4150	3	2	5	ECTH160808 302H4150HST
44	1608	4,700	3	4150	3	2	5	ECTH160808 472H4150HST
45	1608	4,700	3	4500	3	2	5	ECTH160808 472H4500HST
46	1608	5,000	3	3520	3	2	5	ECTH160808 502H3520HST
47	1608	5,000	3	3970	3	2	5	ECTH160808 502H3970HST
48	1608	6,800	3	3830	3	2	5	ECTH160808 682H3830HST
49	1608	10,000	3	3435	3	2	5	ECTH160808 103H3435HST
50	1608	10,000	3	3800	3	2	5	ECTH160808 103H3800HST

* Another specifications are available on request.

► SMD NTC Thermistor ECTH Series

NO	Size [mm]	Electrical specifications						Part No.
		R _{25C} [Ω]	△R[%]	B _{25/85} (K)	△B[%]	δ(mW/°C)	τ(sec)	
51	1608	10,000	3	3970	3	2	5	ECTH160808 103H3970HST
52	1608	10,000	3	4050	3	2	5	ECTH160808 103H4050HST
53	1608	10,000	3	4550	3	2	5	ECTH160808 103H4550HST
54	1608	12,000	3	3830	3	2	5	ECTH160808 123H3830HST
55	1608	30,000	3	3950	3	2	5	ECTH160808 303H3950HST
56	1608	47,000	3	3950	3	2	5	ECTH160808 473H3950HST
57	1608	47,000	3	4050	3	2	5	ECTH160808 473H4050HST
58	1608	47,000	3	4550	3	2	5	ECTH160808 473H4550HST
59	1608	68,000	3	4150	3	2	5	ECTH160808 683H4150HST
60	1608	100,000	3	3970	3	2	5	ECTH160808 104H3970HST
61	1608	100,000	3	4050	3	2	5	ECTH160808 104H4050HST
62	1608	100,000	3	4150	3	2	5	ECTH160808 104H4150HST
63	1608	100,000	3	4400	3	2	5	ECTH160808 104H4400HST
64	1608	150,000	3	3800	3	2	5	ECTH160808 154H3800HST
65	1608	150,000	3	4600	3	2	5	ECTH160808 154H4600HST
66	1608	220,000	3	4600	3	2	5	ECTH160808 224H4600HST
67	1608	330,000	3	4050	3	2	5	ECTH160808 334H4050FST
68	1608	470,000	3	4050	3	2	5	ECTH160808 474H4050HST
69	1608	520,000	3	4600	3	2	5	ECTH160808 524H4600HST
70	1608	530,000	3	3970	3	2	5	ECTH160808 534H3970HST
71	2012	2,000	3	4100	3	3	7.5	ECTH201208 202H4100HST
72	2012	2,200	3	3520	3	3	7.5	ECTH201208 222H3520HST
73	2012	2,200	3	4100	3	3	7.5	ECTH201208 222H4100HST
74	2012	3,300	3	3750	3	3	7.5	ECTH201208 332H3750HST
75	2012	10,000	3	3435	3	3	7.5	ECTH201208 103H3435HST
76	2012	10,000	3	3970	3	3	7.5	ECTH201208 103H3970HST
77	2012	10,000	3	4050	3	3	7.5	ECTH201208 103H4050HST
78	2012	10,000	3	3750	3	3	7.5	ECTH201208 103H3750HST
79	2012	20,000	3	3950	3	3	7.5	ECTH201208 203H3950HST
80	2012	30,000	3	3950	3	3	7.5	ECTH201208 303H3950HST
81	2012	47,000	3	3950	3	3	7.5	ECTH201208 473H3950HST
82	2012	47,000	3	4050	3	3	7.5	ECTH201208 473H4050HST
83	2012	68,000	3	3800	3	3	7.5	ECTH201208 683H3800HST
84	2012	100,000	3	4050	3	3	7.5	ECTH201208 104H4050HST
85	2012	5,000,000	3	5150	3	3	7.5	ECTH201208 505H5150HST

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