

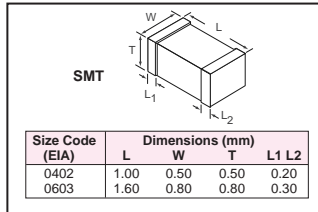
Panasonic

Multilayer Chip NTC Thermistors (ERTJ)

The Multilayer Chip NTC Thermistors are especially designed for surface mountings featuring the miniature sizes of "0402" and "0603" type (EIA) with highly reliable multilayer and monolithic structure.

FEATURES:

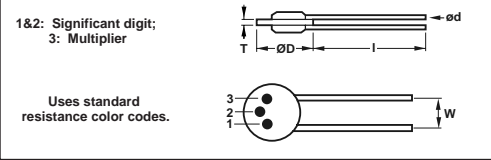
- Highly reliable multilayer/monolithic structure
- Superior heat resistance to reflow soldering and excellent solderability thanks to the unique external electrodes of three metallic layers
- Wide ranges of operating temperature (-40°C to 125°C)
- Low Capacitance (less 3pF)
- Soldering Temperature (270±5°C), Dipping Time (3.0±0.5 sec.)
- Heat Dissipation Constant: Series 0402 at approx. 2mw/°C; Series 0603 at approx. 3mw/°C
- Mounted on a glass epoxy (1.6t)



Size Code (EIA)	Dimensions (mm)			
	L	W	T	L1 L2
0402	1.00	0.50	0.50	0.20
0603	1.60	0.80	0.80	0.30

Zero-Power Resist. (at 25°C)	B Value		Digi-Key Part No.	Cut Tape Price Each	Digi-Key Part No.			Tape & Reel Size	Pricing	Panasonic Part No.
	B25/50	B25/85			1	100	500			
0402										
22Ω	2750K±3%	(2700K)	P10557CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE4220J
33Ω	2750K±3%	(2700K)	P10558CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE4330J
40Ω	2750K±3%	(2700K)	P10559CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE4400J
47Ω	2750K±3%	(2700K)	P10560CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE4470J
68Ω	2800K±3%	(2750K)	P10561CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE4680J
100Ω	2800K±3%	(2750K)	P10562CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE4101J
150Ω	2800K±3%	(2750K)	P10563CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE4151J
1kΩ	4500K±3%	(4450K)	P10564CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE1102J
1.5kΩ	4500K±3%	(4450K)	P10565CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE1152J
2.0kΩ	4500K±3%	(4450K)	P10566CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE1202J
2.2kΩ	4500K±3%	(4450K)	P10567CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE1222J
3.0kΩ	4500K±3%	(4450K)	P10568CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE1302J
3.3kΩ	4500K±3%	(4450K)	P10569CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE1322J
4.7kΩ	4500K±3%	(4450K)	P10570CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE1372J
3.3kΩ	4250K±3%	(4200K)	P10571CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE1332J
4.7kΩ	4250K±3%	(4200K)	P10572CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE1472J
6.8kΩ	4250K±3%	(4200K)	P10573CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE1482J
10kΩ	4250K±3%	(4200K)	P10574CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE1R103J
15kΩ	4250K±3%	(4200K)	P10575CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE1R153J
22kΩ	4250K±3%	(4200K)	P10576CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE1R223J
33kΩ	4250K±3%	(4200K)	P10577CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE1R333J
47kΩ	4700K±3%	(4750K)	P10578CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE1V473J
68kΩ	4700K±3%	(4750K)	P10579CT-ND	1.05	93	73	60	10,000	355.05/M	ERT-JOE1V683J
47kΩ	4050K±2%	(4100K)	P11441CT-ND	47	42	33	27	10,000	160.28/M	ERT-JOE1P473J
100kΩ	4700K±2%	(4750K)	P11442CT-ND	47	42	33	27	10,000	160.28/M	ERT-JOE1V104J
150kΩ	4700K±2%	(4750K)	P11443CT-ND	89	78	61	50	10,000	299.38/M	ERT-JOE1V154J
220kΩ	4700K±2%	(4750K)	P11444CT-ND	58	51	41	33	10,000	196.56/M	ERT-JOE1V224J
330kΩ	4700K±2%	(4750K)	P11445CT-ND	58	51	41	33	10,000	196.56/M	ERT-JOE1V334J
470kΩ	4700K±2%	(4750K)	P11446CT-ND	58	51	41	33	10,000	196.56/M	ERT-JOE1V474J
0603										
22Ω	2750K±3%	(2700K)	P10531CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1VA220J
33Ω	2750K±3%	(2700K)	P10532CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1VA330J
40Ω	2800K±3%	(2750K)	P10533CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1VA400J
47Ω	2800K±3%	(2750K)	P10534CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1VA470J
68Ω	2800K±3%	(2750K)	P10535CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1VA680J
100Ω	2800K±3%	(2750K)	P10536CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1VA101J
1kΩ	4500K±3%	(4450K)	P10537CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1102J
1.5kΩ	4500K±3%	(4450K)	P10538CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1152J
2.0kΩ	4500K±3%	(4450K)	P10539CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1202J
2.2kΩ	4500K±3%	(4450K)	P10540CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1222J
3.0kΩ	4500K±3%	(4450K)	P10541CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1302J
3.3kΩ	4500K±3%	(4450K)	P10542CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1332J
4.7kΩ	4500K±3%	(4450K)	P10543CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1472J
3.3kΩ	4250K±3%	(4200K)	P10544CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1R332J
4.7kΩ	4250K±3%	(4200K)	P10545CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1R472J
6.8kΩ	4250K±3%	(4200K)	P10546CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1R682J
10kΩ	4250K±3%	(4200K)	P10547CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1R103J
15kΩ	4250K±3%	(4200K)	P10548CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1R153J
22kΩ	4250K±3%	(4200K)	P10549CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1R223J
33kΩ	4250K±3%	(4200K)	P10550CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1R333J
47kΩ	4250K±3%	(4200K)	P10551CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1R473J
68kΩ	4250K±3%	(4200K)	P10552CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1R683J
47kΩ	4700K±3%	(4750K)	P10553CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1V473J
68kΩ	4700K±3%	(4750K)	P10554CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1V683J
100kΩ	4700K±3%	(4750K)	P10555CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1V104J
150kΩ	4700K±3%	(4750K)	P10556CT-ND	96	84	66	54	4,000	358.50/M	ERT-J1V1V154J

Panasonic NTC Thermistors



- ### FEATURES:
- Resistance temperature coefficient is negative and extremely large
 - Wide selection of temperature coefficient (constant B)
 - Excellent electrical and thermal stability
 - Color coded to indicate resistance value @ 25°C

SPECIFICATIONS:

Max. Watt Rtg. (W): PNT100-123 - 0.4; PNT124-138 - 0.6. Nom. Time Constant (sec.): PNT100-123 - 20; PNT124-138 - 27.

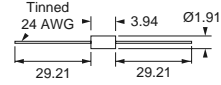
- ### APPLICATIONS:
- For measuring equipment: thermometer, wind gauge, liquid level gauge, temperature controller
 - For temperature compensation: transistor circuit, measuring equipment
 - For driving: Delay setting in relay operation, inrush current surge protection, communication equipment, AGC, time lag

F Type Dimensions	øD	T	l	W	ød
PNT100 - PNT123 (D2)	5.0 ± 0.5	1.3 ± 0.5	30 min.	2.5 ± 1	0.4
PNT124 - PNT138 (D3)	7.5 ± 0.5	1.4 ± 0.5	30 min.	5 ± 1	0.5

Res. at 25°C (Ω)	Temp. Coef. (25°C) (%/°C)	Res. Ratio R25/R50	Digi-Key Part No.	Price Each	Panasonic Part No.
20	-3.4	2.18	PNT100-ND	1.07 92 .62 .39	ERT-D2FGL200S
40	-3.9	2.48	PNT101-ND	1.07 92 .62 .39	ERT-D2FGL400S
75	-4.2	2.62	PNT102-ND	1.07 92 .62 .39	ERT-D2FGL750S
100	-3.9	2.48	PNT104-ND	1.07 92 .62 .39	ERT-D2FGL101S
100	-4.2	2.62	PNT105-ND	1.07 92 .62 .39	ERT-D2FGL101S
170	-4.2	2.62	PNT106-ND	1.07 92 .62 .39	ERT-D2FGL171S
250	-3.9	2.48	PNT107-ND	1.07 92 .62 .39	ERT-D2FGL251S
250	-4.2	2.62	PNT108-ND	1.07 92 .62 .39	ERT-D2FGL251S
300	-4.2	2.62	PNT109-ND	1.07 92 .62 .39	ERT-D2FGL301S
350	-3.9	2.48	PNT110-ND	1.07 92 .62 .39	ERT-D2FGL351S
600	-4.5	2.83	PNT111-ND	1.07 92 .62 .39	ERT-D2FGL601S
800	-4.4	2.76	PNT112-ND	1.07 92 .62 .39	ERT-D2FGL801S
1,000	-4.1	2.55	PNT113-ND	1.07 92 .62 .39	ERT-D2FGL102S
1,400	-4.4	2.76	PNT114-ND	1.07 92 .62 .39	ERT-D2FGL142S
2,000	-4.5	2.83	PNT115-ND	1.07 92 .62 .39	ERT-D2FGL202S
3,300	-4.5	2.83	PNT116-ND	1.07 92 .62 .39	ERT-D2FGL332S
4,600	-4.6	2.90	PNT117-ND	1.07 92 .62 .39	ERT-D2FGL462S
8,000	-4.6	2.90	PNT118-ND	1.07 92 .62 .39	ERT-D2FGL802S
10,000	-4.6	2.90	PNT119-ND	1.07 92 .62 .39	ERT-D2FGL103S
15,000	-4.7	2.98	PNT120-ND	1.07 92 .62 .39	ERT-D2FGL153S
33,000	-5.1	3.22	PNT121-ND	1.07 92 .62 .39	ERT-D2FGL333S
50,000	-5.1	3.48	PNT122-ND	1.07 92 .62 .39	ERT-D2FGL503S
150,000	-5.4	3.48	PNT123-ND	1.07 92 .62 .39	ERT-D2FGL154S
8	-3.4	2.18	PNT124-ND	2.25 1.94 1.29 .81	ERT-D3FGLBROS
13	-3.6	2.30	PNT125-ND	2.25 1.94 1.29 .81	ERT-D3FGL130S
16	-3.6	2.30	PNT126-ND	2.25 1.94 1.29 .81	ERT-D3FGL160S
20	-3.6	2.30	PNT127-ND	2.25 1.94 1.29 .81	ERT-D3FGL200S
30	-3.7	2.30	PNT128-ND	2.25 1.94 1.29 .81	ERT-D3FGL300S
40	-3.2	2.30	PNT130-ND	2.25 1.94 1.29 .81	ERT-D3FGL400S
75	-4.2	2.62	PNT131-ND	2.25 1.94 1.29 .81	ERT-D3FGL750S
80	-4.2	2.62	PNT132-ND	2.25 1.94 1.29 .81	ERT-D3FGL800S
130	-4.5	2.62	PNT134-ND	2.25 1.94 1.29 .81	ERT-D3FGL131S
500	-4.6	2.83	PNT135-ND	2.25 1.94 1.29 .81	ERT-D3FGL501S
4,000	-4.6	2.90	PNT136-ND	2.25 1.94 1.29 .81	ERT-D3FGL402S
20,000	-5.1	3.22	PNT137-ND	2.25 1.94 1.29 .81	ERT-D3FGL203S
80,000	-5.6	3.70	PNT138-ND	2.25 1.94 1.29 .81	ERT-D3FGL803S

THERMOMETRICS GLOBAL BUSINESS

Glass Encapsulated Thermistors



- ### SPECIFICATIONS:
- Temp. Range: -50°C to 204°C
 - Dissipation Constant: 2.0mw/°C
 - Time Constant: 3 sec.

Ro @ 25°C	Temp. Coef. (%/°C @ 25°C)	Material	Digi-Key Part No.	Price Each
250	-3.34	GE55*	KC001G-ND	2.66 2.39 1.89 1.50
500	-3.34	GE55*	KC002G-ND	2.66 2.39 1.89 1.50