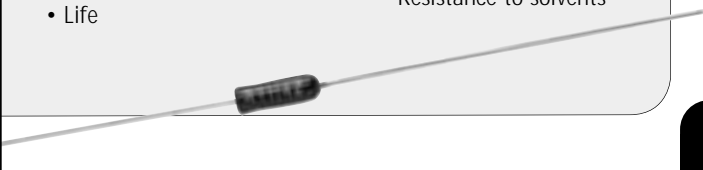


# PTC Military Grade Thermistors

## Military Grade Leaded Thermistors

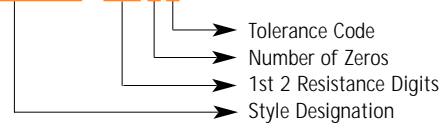
RTH42 and RTH22 Military Grade PTC thermistors meet or exceed the requirements of MIL-PRF-23648 including:

- Short time overload
- Low temperature storage
- High temperature storage
- Terminal strength
- Thermal shock
- Resistance to soldering heat
- Moisture resistance
- Life
- High temperature exposure
- Vibration, high frequency
- Shock, specified pulse
- Seal
- Immersion
- Resistance to solvents



### Ordering Information

**RTH42ES 202J**



Tolerance:

K = 10%

J = 5%

Any of the above tests, or tests dictated by your application, can be performed at Quality Thermistor on the specific lot you are ordering. Contact QTI Technical Support for details.

\*COMMERCIAL GRADE AVAILABLE, CONTACT FACTORY FOR DETAILS

TYPE	OPERATING TEMP. RANGE	STANDARD RESISTANCE RANGE	POWER RATING AT 25°C IN WATTS	THERMAL TIME CONSTANT SECONDS MAXIMUM
RTH22 MIL-PRF-23648/9 	-55°C TO +125°C	10 – 10K ohms	.500 @ 25°C derate per Table 4	60
RTH42 MIL-PRF-23648/19 	-55°C TO +125°C	10 – 10K ohms	.250 @ 25°C derate per Table 4	60

PTC TABLE 1 Resistance Multipliers for RTH42

TEMPERATURE	10 TO 68 OHMS	82 TO 150 OHMS	180 TO 470 OHMS	560 TO 1200 OHMS	1500 TO 5600 OHMS	6800 TO 10,000 OHMS
-55°C	0.615	0.582	0.560	0.550	0.515	0.510
-15°C	0.790	0.770	0.755	0.740	0.730	0.730
0°C	0.863	0.847	0.838	0.835	0.825	0.825
25°C	1.000	1.000	1.000	1.000	1.000	1.000
50°C	1.160	1.170	1.180	1.200	1.230	1.190
75°C	1.350	1.370	1.400	1.420	1.450	1.400
100°C	1.545	1.584	1.623	1.656	1.670	1.610
125°C	1.750	1.800	1.860	1.920	1.960	1.830

PTC TABLE 2 Resistance Multipliers for RTH22

TEMPERATURE	10 TO 68 OHMS	82 TO 150 OHMS	180 TO 560 OHMS	680 TO 1500 OHMS	1.8K TO 10K OHMS
-55°C	0.615	0.582	0.560	0.550	0.515
-15°C	0.790	0.770	0.755	0.740	0.730
0°C	0.863	0.847	0.838	0.835	0.825
25°C	1.000	1.000	1.000	1.000	1.000
50°C	1.160	1.170	1.180	1.200	1.230
75°C	1.350	1.370	1.400	1.420	1.450
100°C	1.545	1.584	1.623	1.656	1.670
125°C	1.750	1.800	1.860	1.920	1.960

PTC TABLE 3 Device Tolerance at Temperatures Other Than 25°C

SEQUENCE	TEMPERATURE	J +/-%	K +/-%
1	-55°C	20	25
2	-15°C	13	18
3	0°C	7	12
4	25°C	5	10
5	50°C	7	12
6	75°C	9	14
7	100°C	12	17
8	125°C	15	20

TABLE 4 Derating Curve for High Ambient Temperatures

