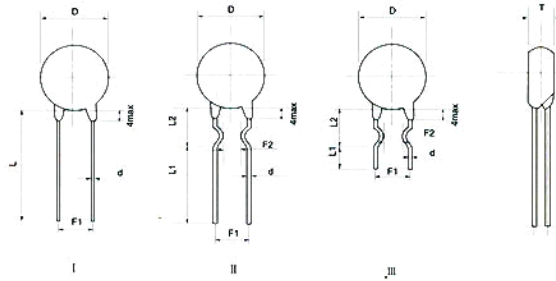
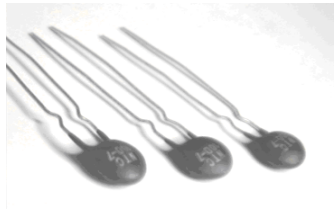


PT Series –Power Type NTC Thermistor



unit : mm

PT series NTC thermistor has to be connected in series to the power source circuit to avoid the surge current at the instant when the electronic circuits are turned on. The device can effectively suppress the surge current, and its resistance and power consumption can be greatly reduced after that through the continuous effect of the current so as not to affect the normal work current. Therefore the Power NTC thermistor is the most convenient and efficient instrument to curb the surge current and protect the electronic devices from being damaged.

FEATURES

- Strong power and strong capability of surge current protection.
- Characteristics Fast response to the rapidly surge.
- Big material constant(B value),Small remain resistance.
- High reliability.
- Integral series, Extensive operating range.
- Operating Temp. $-55^{\circ}\text{C} \sim +200^{\circ}\text{C}$

APPLICATION

- switching power supply ·UPS power supply,
- electric heaters · electronic energy-saving lamps
- filament protection of color tubes
- incandescent lamps and other lights. ·electronic ballasts

Part Number Identification



| | | ② | | ③ | |
|-----|----------------------|-----------------|------|-----------|------|
| | | 25°C resistance | | Max. Dia. | |
| NTC | POWER NTC Thermistor | 5 | 5Ω | D5 | 5mm |
| | | 33 | 33Ω | D11 | 11mm |
| | | 120 | 120Ω | D13 | 13mm |

Electronic parameter Specification

| Part No. | R _{25°C} (Ω) | Max.Steady State Current (A) | Approx.R @ Max.Cur (Ω) | Dissipation factor (δ)(mW/°C) | Thermal time constant (s) |
|-----------|-----------------------|------------------------------|------------------------|-------------------------------|---------------------------|
| | | | | | |
| NTC-10D5 | 10 | 0.7 | 0.771 | 6 | 20 |
| NTC-60D5 | 60 | 0.5 | 1.878 | 6 | 18 |
| NTC-200D5 | 200 | 0.1 | 6.259 | 6 | 18 |
| NTC-5D7 | 5 | 2 | 0.283 | 10 | 30 |
| NTC-8D7 | 8 | 1 | 0.539 | 9 | 28 |
| NTC-10D7 | 10 | 1 | 0.616 | 9 | 27 |
| NTC-12D7 | 12 | 1 | 0.816 | 9 | 27 |
| NTC-16D7 | 16 | 0.7 | 1.003 | 9 | 27 |
| NTC-22D7 | 22 | 0.6 | 1.108 | 9 | 27 |
| NTC-33D7 | 33 | 0.5 | 1.485 | 10 | 28 |
| NTC-200D7 | 200 | 0.2 | 6.233 | 11 | 28 |
| NTC-3D9 | 3 | 4 | 0.120 | 11 | 35 |
| NTC-4D9 | 4 | 3 | 0.190 | 11 | 35 |
| NTC-5D9 | 5 | 3 | 0.210 | 11 | 34 |
| NTC-6D9 | 6 | 2 | 0.315 | 11 | 34 |
| NTC-8D9 | 8 | 2 | 0.400 | 11 | 32 |
| NTC-10D9 | 10 | 2 | 0.458 | 11 | 32 |
| NTC-12D9 | 12 | 1 | 0.652 | 11 | 32 |
| NTC-16D9 | 16 | 1 | 0.802 | 11 | 31 |
| NTC-20D9 | 20 | 1 | 0.864 | 11 | 30 |
| NTC-22D9 | 22 | 1 | 0.950 | 11 | 30 |
| NTC-30D9 | 30 | 1 | 1.022 | 11 | 30 |
| NTC-33D9 | 33 | 1 | 1.124 | 11 | 30 |
| NTC-50D9 | 50 | 1 | 1.252 | 11 | 30 |

| | | | | | |
|------------|-----|-----|-------|----|----|
| NTC-60D9 | 60 | 0.8 | 1.502 | 11 | 30 |
| NTC-80D9 | 80 | 0.8 | 2.010 | 11 | 30 |
| NTC-120D9 | 120 | 0.8 | 3.015 | 11 | 30 |
| NTC-200D9 | 200 | 0.5 | 5.007 | 11 | 32 |
| NTC-400D9 | 400 | 0.2 | 9.852 | 11 | 32 |
| NTC-2.5D11 | 2.5 | 5 | 0.095 | 13 | 43 |
| NTC-3D11 | 3 | 5 | 0.100 | 13 | 43 |
| NTC-3D11 | 3 | 5 | 0.100 | 13 | 43 |
| NTC-4D11 | 4 | 4 | 0.150 | 13 | 44 |
| NTC-5D11 | 5 | 4 | 0.156 | 13 | 45 |
| NTC-6D11 | 6 | 3 | 0.240 | 13 | 45 |
| NTC-8D11 | 8 | 3 | 0.255 | 14 | 47 |
| NTC-10D11 | 10 | 3 | 0.275 | 14 | 47 |
| NTC-12D11 | 12 | 2 | 0.462 | 14 | 48 |
| NTC-16D11 | 16 | 2 | 0.470 | 14 | 50 |
| NTC-20D11 | 20 | 2 | 0.512 | 15 | 52 |
| NTC-22D11 | 22 | 2 | 0.563 | 15 | 52 |
| NTC-30D11 | 30 | 1.5 | 0.667 | 15 | 52 |
| NTC-33D11 | 33 | 1.5 | 0.734 | 15 | 52 |
| NTC-50D11 | 50 | 1.5 | 1.021 | 15 | 52 |
| NTC-3D11 | 3 | 5 | 0.100 | 13 | 43 |
| NTC-4D11 | 4 | 4 | 0.150 | 13 | 44 |
| NTC-5D11 | 5 | 4 | 0.156 | 13 | 45 |
| NTC-6D11 | 6 | 3 | 0.240 | 13 | 45 |
| NTC-8D11 | 8 | 3 | 0.255 | 14 | 47 |
| NTC-10D11 | 10 | 3 | 0.275 | 14 | 47 |
| NTC-12D11 | 12 | 2 | 0.462 | 14 | 48 |
| NTC-16D11 | 16 | 2 | 0.470 | 14 | 50 |
| NTC-20D11 | 20 | 2 | 0.512 | 15 | 52 |
| NTC-22D11 | 22 | 2 | 0.563 | 15 | 52 |
| NTC-30D11 | 30 | 1.5 | 0.667 | 15 | 52 |
| NTC-33D11 | 33 | 1.5 | 0.734 | 15 | 52 |
| NTC-50D11 | 50 | 1.5 | 1.021 | 15 | 52 |
| NTC-60D11 | 60 | 1.5 | 1.215 | 15 | 52 |
| NTC-80D11 | 80 | 1.2 | 1.656 | 15 | 52 |
| NTC-1.3D13 | 1.3 | 7 | 0.062 | 13 | 60 |
| NTC-1.5D13 | 1.5 | 7 | 0.073 | 13 | 60 |
| NTC-2.5D13 | 2.5 | 6 | 0.088 | 13 | 60 |
| NTC-3D13 | 3 | 6 | 0.092 | 14 | 60 |
| NTC-4D13 | 4 | 5 | 0.120 | 15 | 67 |
| NTC-5D13 | 5 | 5 | 0.125 | 15 | 68 |
| NTC-6D13 | 6 | 4 | 0.170 | 15 | 65 |

| | | | | | |
|------------|-----|-----|-------|----|-----|
| NTC-7D13 | 7 | 4 | 0.188 | 15 | 65 |
| NTC-8D13 | 8 | 4 | 0.194 | 15 | 60 |
| NTC-10D13 | 10 | 4 | 0.206 | 15 | 65 |
| NTC-12D13 | 12 | 3 | 0.316 | 16 | 65 |
| NTC-15D13 | 15 | 3 | 0.335 | 16 | 60 |
| NTC-16D13 | 16 | 3 | 0.338 | 16 | 60 |
| NTC-20D13 | 20 | 3 | 0.372 | 16 | 65 |
| NTC-30D13 | 30 | 2.5 | 0.517 | 16 | 65 |
| NTC-47D13 | 47 | 2 | 0.810 | 17 | 65 |
| NTC-120D13 | 120 | 1.5 | 2.124 | 16 | 65 |
| NTC-1.3D15 | 1.3 | 8 | 0.048 | 18 | 68 |
| NTC-1.5D15 | 1.5 | 8 | 0.052 | 19 | 69 |
| NTC-3D15 | 3 | 7 | 0.075 | 18 | 76 |
| NTC-5D15 | 5 | 6 | 0.112 | 20 | 76 |
| NTC-6D15 | 6 | 5 | 0.155 | 20 | 80 |
| NTC-7D15 | 7 | 5 | 0.173 | 20 | 80 |
| NTC-8D15 | 9 | 5 | 0.178 | 20 | 80 |
| NTC-10D15 | 10 | 5 | 0.180 | 20 | 75 |
| NTC-12D15 | 12 | 4 | 0.250 | 20 | 75 |
| NTC-15D15 | 15 | 4 | 0.268 | 21 | 85 |
| NTC-16D15 | 16 | 4 | 0.276 | 21 | 70 |
| NTC-20D15 | 20 | 4 | 0.288 | 17 | 86 |
| NTC-30D15 | 30 | 3.5 | 0.438 | 18 | 75 |
| NTC-47D15 | 47 | 3 | 0.680 | 21 | 86 |
| NTC-120D15 | 120 | 2.5 | 1.652 | 22 | 87 |
| NTC-0.7D20 | 0.7 | 12 | 0.018 | 25 | 112 |
| NTC-1.3D20 | 1.3 | 9 | 0.037 | 24 | 113 |
| NTC-3D20 | 3 | 8 | 0.055 | 24 | 113 |
| NTC-5D20 | 5 | 7 | 0.087 | 23 | 112 |
| NTC-6D20 | 6 | 6 | 0.113 | 25 | 114 |
| NTC-8D20 | 8 | 6 | 0.142 | 25 | 115 |
| NTC-10D20 | 10 | 6 | 0.162 | 24 | 113 |
| NTC-12D20 | 12 | 5 | 0.195 | 24 | 114 |
| NTC-16D20 | 16 | 5 | 0.212 | 25 | 113 |
| NTC-0.7D25 | 0.7 | 13 | 0.014 | 30 | 151 |
| NTC-1.5D25 | 1.5 | 10 | 0.027 | 30 | 152 |
| NTC-3D25 | 3 | 9 | 0.044 | 32 | 150 |
| NTC-5D25 | 5 | 8 | 0.070 | 32 | 151 |
| NTC-8D25 | 8 | 7 | 0.114 | 33 | 151 |
| NTC-10D25 | 10 | 7 | 0.130 | 32 | 150 |
| NTC-12D25 | 12 | 6 | 0.156 | 32 | 150 |
| NTC-16D25 | 16 | 6 | 0.160 | 35 | 152 |

Dimension

| | D +1 -2 | Tmax | d±0.05 | F 1 ±1 | F 2 ±1.5 | Straight lead | Bending lead | |
|----------|------------|------|----------|--------|----------|---------------|--------------|--------|
| | | | | | | Lmin | b L 1 min | L 2 ±2 |
| NTC-□D5 | 6.5 | 5 | 0.6/0.45 | 5/2.5 | 3 | 25 | 17/5 | 8 |
| NTC-□D7 | 8.5 | 5 | 0.6 | 5 | 3 | 25 | 17/5 | 8 |
| NTC-□D9 | 10.5 | 5.5 | 0.8/0.6 | 7.5/5 | 5/3 | 25 | 17/5 | 8 |
| NTC-□D11 | 12.5 | 5.5 | 0.8 | 7.5/5 | 5/3 | 25 | 17/5 | 8 |
| NTC-□D13 | 14.5 | 6 | 0.8 | 7.5 | 5 | 25 | 17/5 | 8 |
| NTC-□D15 | 16.5 | 6 | 0.8 | 10/7.5 | 5 | 25 | 17/5 | 8 |
| NTC-□D20 | 21.5 | 7 | 1.0 | 10/7.5 | / | 25 | / | / |
| NTC-□D25 | 26.5 | 8 | 1.0 | 10 | / | 25 | / | / |