

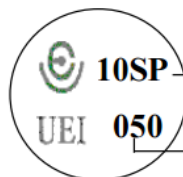
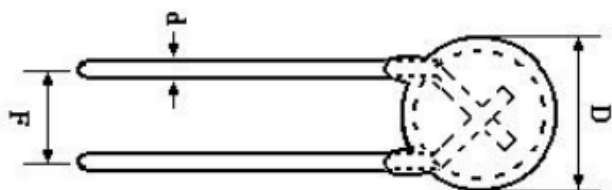
Datasheet

8Ω Protection NTC Thermistor

RS Stock 516-7811



Dimensions: (mm)



Nominal Diameter

Resistance at 25°C

0R7 : 0.7Ω

1R3 : 1.3Ω

003~008 : 3~8Ω

010~080 : 10~80Ω

120 : 120Ω

D : Diameter with coating

F : Forming Pitch

T : Thickness of thermistor with coating

L : Length of leads

d : Diameter of leads

10Φ	D	F	T	L	d
max.	11.5	6.0	5.0	-	0.82
\bar{X}	-	5.0	-	-	0.80
min.	-	4.0	-	25.0	0.78

UNIT : mm

Specification

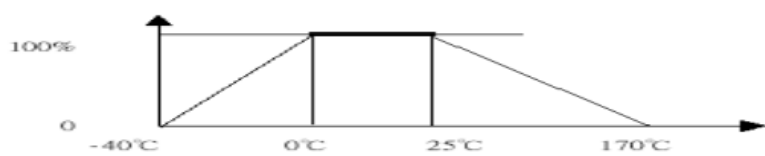
Style: Disc Type Thermistor (Negative Temperature Coefficient)

- Material coating: Silicone
- Colour Coating: Black
- Material of Lead: Cu, Fe,Sn Material

Maximum Ratings (Ambient $T_a=25^{\circ}\text{C}$)

	Item	Conditions	Max. Rated Value
a	Rated Temperature	in still air	-40 ~ +170 $^{\circ}\text{C}$
b	Max. Permissible Working Current	$T_a : 25^{\circ}\text{C}$	2 Amp.

Electrical Characteristics

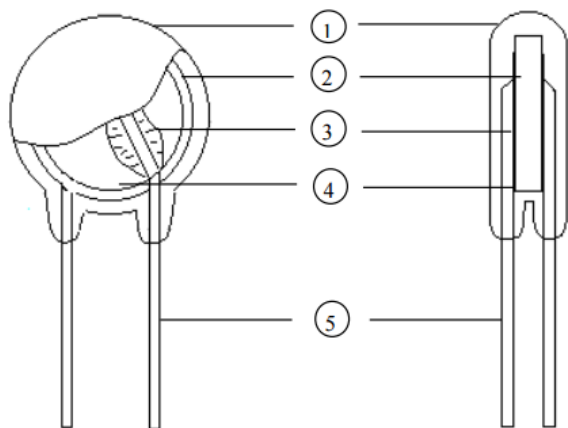
	Item	Conditions	Specification
a	Zero Power Resistance	$T_a : 25 \pm 0.2^{\circ}\text{C}, I \leq 0.5\text{mA}$	50 $\Omega \pm 20\%$
b	Beta Value	$8876 * \text{Log}(R_{25}/R_{50})$	3211 $\pm 7\%$
c	Thermal Dissipation Constant	$T_a : 25^{\circ}\text{C}$	10 $\text{mW}/^{\circ}\text{C}$ (Approx.)
d	Thermal Time Constant	$T_a : 25^{\circ}\text{C}$	58 sec. (Approx.)
e	Insulation	1000 Vdc	> 500 $\text{M}\Omega$
f	V-I Test	Steady State Current I: 0.5 Amps I: 1 Amps I: 2 Amps	Resistance Under Load 4701 $\text{m}\Omega$ (Approx.) 1901 $\text{m}\Omega$ (Approx.) 723 $\text{m}\Omega$ (Approx.)
g	UL APPROVAL MAX. load capacitance(uf), $\langle 240\text{Vac}/420\text{uf} \rangle$, compares of the twice R-T value of Before test & After test, the variation of temperature must be within $\pm 20^{\circ}\text{C}$.		
h	Permissible Electrolytic Capacitor suggestion to use in the safety range is under $\langle 340\text{Vdc}/100\text{uf} \rangle$		
i	UL Test Temperature (min : 0°C)		
j	VDE Test Temperature (None)		
k	<p>Maximum power rating(P_{max})</p>  <p>The customer makes the test according to the actual design demand temperature</p>		

Mechanical Characteristics

	Item	Conditions	Specification
a	Terminal Pull	Load : 2.5 kg, time : 5 sec.	No Break Out
b	Terminal Bend	Load : 1 kg Bend : 0° → 90° → 0° * 2 Cycles	No Break Out
c	Solderability	230±5°C , 3± 0.5 sec.	at Least 95% of the lead wire circumference is covered with solder.
d	Solder Heat Resistance	260± 5°C , 3± 0.5 sec.	$\Delta R/R : \leq \pm 10\%$

Reliability Test

	Item	Conditions	Specification Variable Rate of Resistance
a	Thermal Shock	-40°C *30' → +25°C *30' → +150°C *30' → + 25°C *30' *8 Cycles	Max.+15%
b	Humidity	45°C, 95% R.H.*1000 Hours 300mA on 2 Min. off 6 Min. * 5000 Times	Max.+15%
c	Continuous Load Life	25°C , 2 Amps *1000 Hours	Max.+25%
d	Temperature Storage	60°C *300 mA*1000 Hours	Max.+25%



Material

No.	Component	Material
1	Coating	Silicone
2	NTC Thermistor	Mn,Ni,Cu,Fe,Oxide
3	Solder	Sn-Ag
4	Electrode	Ag
5	Lead Wire	(Cu,Fe,Sn) Material