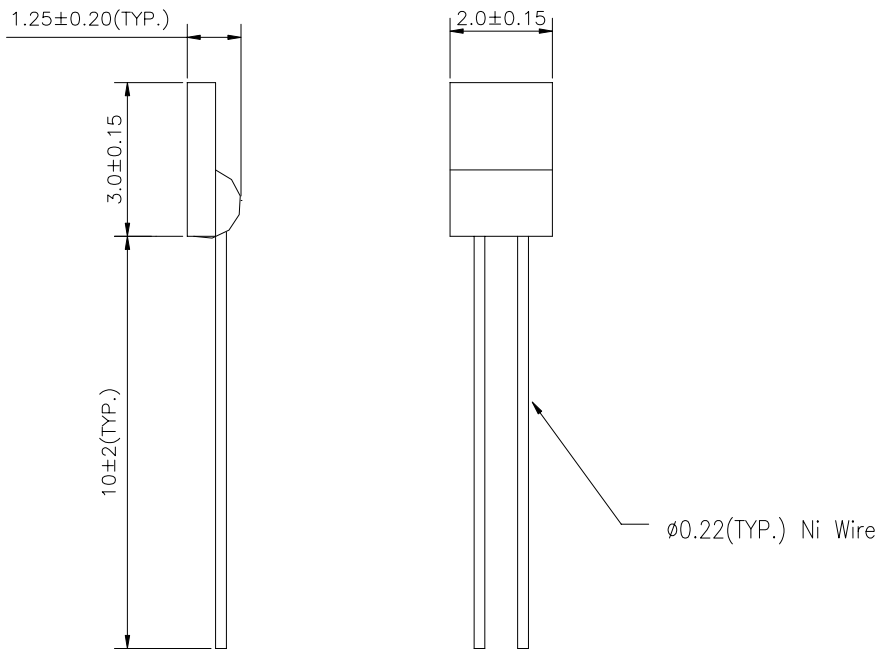


Specification of Pt Thermal Sensor

1. Electrical Characteristics of SA50160536

- 1-1 Resistance value (at 0°C) : 500.00±0.3 ohm
- 1-2 Maximum applied current : 1mA
- 1-3 Insulation resistance : exceed 100M ohm at 500V DC (@ room temp.)
- 1-4 Thermal response time (90%) : 15 sec. max.(in air, 1m/sec.)
- 1-5 Self heating : 2 mW/°C(in air, 1m/sec.)
- 1-6 Operation temperature range : -50°C to 500°C

2. Outline Drawings



UNLESS OTHERWISE SPECIFIED TOLERANCES ON :

X = ±

X.X = ±

X.XX = ±

ANGLES ± HOLE DIA.±

DRAWN BY:

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Temperature (°C)	Nominal Resistance(Ω)	Resistance Deviation(Ω)	Temperature Deviation(°C)
-50	401.53	0.50	0.25
-25	450.96	0.39	0.20
0	500.00	0.30	0.15
25	548.67	0.39	0.20
50	596.99	0.48	0.25
75	644.94	0.57	0.30
100	692.53	0.66	0.35
125	739.76	0.75	0.40
150	786.63	0.84	0.45
175	833.13	0.93	0.50
200	879.28	1.01	0.55
225	925.07	1.09	0.60
250	970.49	1.18	0.65
275	1015.55	1.26	0.70
300	1060.26	1.34	0.75
325	1104.60	1.41	0.80
350	1148.58	1.49	0.85
375	1192.20	1.56	0.90
400	1235.46	1.64	0.95
425	1278.36	1.71	1.00
450	1320.90	1.78	1.05
475	1363.07	1.85	1.10
500	1404.89	1.92	1.15

(1) Relationship of temperature with resistance

When $t \geq 0^\circ\text{C}$	When $t < 0^\circ\text{C}$
$R_t = R_0 (1 + At + Bt^2)$	$R_t = R_0 [1 + At + Bt^2 + C(t-100)t^3]$
$A = 3.9083\text{E-}03$	$A = 3.9083\text{E-}03$
$B = -5.7750\text{E-}07$	$B = -5.7750\text{E-}07$
	$C = -4.1830\text{E-}12$
	$R_0 = 5.000\text{E+}02$

(2) Temperature deviation

$$\pm(a + b |t|) ^\circ\text{C}$$

$$a = 0.600$$

$$b = 0.007$$

(3) Specifications are subject to change without notice

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