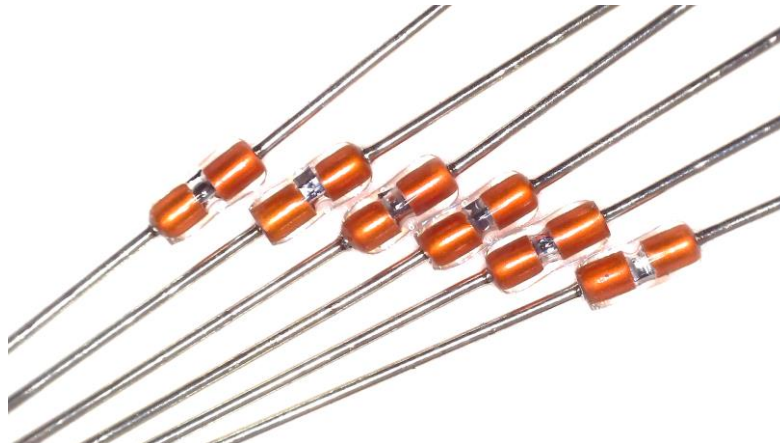


Temperature Sensors of PTC Series - KTY replacement



- **Alternative to KTY81, KTY82, KTY83 & KTY84**
- **Almost identical characteristics**
- **No polarity reversal (+/-) possible**
- **Short reaction time**
- **Excellent long-term stability**
- **DO-35 glass housing**
- **Customized packaging**

Applications

The temperature sensors of the PTC series can be used as an alternative to the discontinued KTY81, KTY82, KTY83 & KTY84. The almost identical characteristic and design allow easy replacement. As single unit or assembled they can be ordered. Frequent applications can be found in windings of electric motors and transformers as winding temperature sensors, but also in printed circuit board construction, in household appliances and many more.

General technical data

Dimensions	DO-35 (DO-204-AH or SOD27)	
Operating temperature range	PTC-600: -40°C ... +170°C	
	PTC-1000: -55°C ... +150°C	
	PTC-2000: -55°C ... +150°C	
Recommended measuring current	< 5mA	
Max. current	8mA @ 25°C	
Rated power	10mW	
Leads	Ferro-Nickel tinned	

Changes and errors expected

Variants & Order Numbers

Description	Resistance	Tolerance	Measuring range	Alternative to	Order number						
					Bag	Tape & Reel					
PTC-600 (3%)	$R_{100} = 1025 \Omega$	$\pm 3\%$	-40°C ... +170°C	KTY84/130	520656	520662					
PTC-600 (5%)	$R_{100} = 1025 \Omega$	$\pm 5\%$		KTY84/150 KTY84/151	520657	520657					
PTC-600 (3%)	$R_{100} = 1025 \Omega$	$\pm 3\%$	-40°C ... +170°C	KTY84/130	520656	520662					
PTC-600 (5%)	$R_{100} = 1025 \Omega$	$\pm 5\%$		KTY84/150 KTY84/151	520657	520663					
PTC-1000 (1%)	$R_{25} = 1000 \Omega$	$\pm 1\%$	-55°C ... +150°C	KTY81/110	520665	520871					
				KTY82/110							
				KTY83/110							
PTC-1000 (2%)	$R_{25} = 1000 \Omega$	$\pm 2\%$		KTY81/120 KTY81/121 KTY81/122	520672	520677					
				KTY82/120 KTY82/121 KTY82/122							
				KTY83/120 KTY83/121 KTY83/122							
				PTC-1000 (5%)			$R_{25} = 1000 \Omega$	$\pm 5\%$	KTY81/150 KTY82/150 KTY82/151	520667	520668
									KTY83/150 KTY83/151		
				PTC-2000 (1%)			$R_{25} = 2000 \Omega$	$\pm 1\%$	KTY81/210	520873	520660
PTC-2000 (2%)	$R_{25} = 2000 \Omega$	$\pm 2\%$		KTY81/220 KTY81/221 KTY81/222	520661	520872					
			KTY82/210 KTY82/220 KTY82/221 KTY82/222								
			PTC-2000 (5%)	$R_{25} = 2000 \Omega$			$\pm 5\%$	KTY81/250	520664	520669	
								KTY82/250 KTY82/251 KTY82/252			

* Above the specified measuring ranges, the linearity of the characteristic curves cannot guaranteed

R/T table

°C	PTC-600 (3%)			PTC-1000 (1%)			PTC-2000 (1%)		
	min. Ω	nor. Ω	max. Ω	min. Ω	nor. Ω	max. Ω	min. Ω	nor. Ω	max. Ω
-55	---	---	---	451	487	524	942	980	1000
-50	---	---	---	477	512	546	992	1030	1051
-40	334	344	371	530	562	595	1098	1135	1158
-30	360	372	400	586	617	648	1212	1247	1271
-20	395	408	437	649	678	707	1333	1367	1391
-10	432	446	476	716	743	769	1463	1495	1519
0	472	487	518	788	811	835	1600	1630	1653
10	514	530	562	872	884	897	1746	1772	1795
20	559	576	609	940	951	962	1900	1922	1943
25	582	600	634	990	1000	1010	1980	2000	2020
30	604	623	657	1028	1040	1052	2056	2080	2103
40	651	672	706	1110	1125	1139	2215	2245	2274
50	700	724	757	1195	1213	1230	2380	2417	2454
60	755	780	813	1283	1304	1325	2553	2597	2641
70	811	837	870	1375	1400	1425	2732	2785	2837
80	869	897	929	1471	1500	1529	2918	2980	3041
90	931	960	992	1567	1605	1643	3111	3182	3253
100	994	1025	1056	1688	1726	1765	3310	3392	3474
110	1057	1091	1126	1789	1836	1884	3514	3607	3700
120	1124	1160	1201	1909	1961	2012	3712	3817	3922
130	1194	1234	1281	2028	2083	2138	3891	4008	4124
140	1262	1306	1357	2141	2203	2265	4039	4166	4293
150	1327	1375	1432	2253	2323	2393	4143	4280	4417
160	1385	1437	1501	---	---	---			
170	1438	1493	1563	---	---	---			



Changes and errors expected

Packaging

Bag

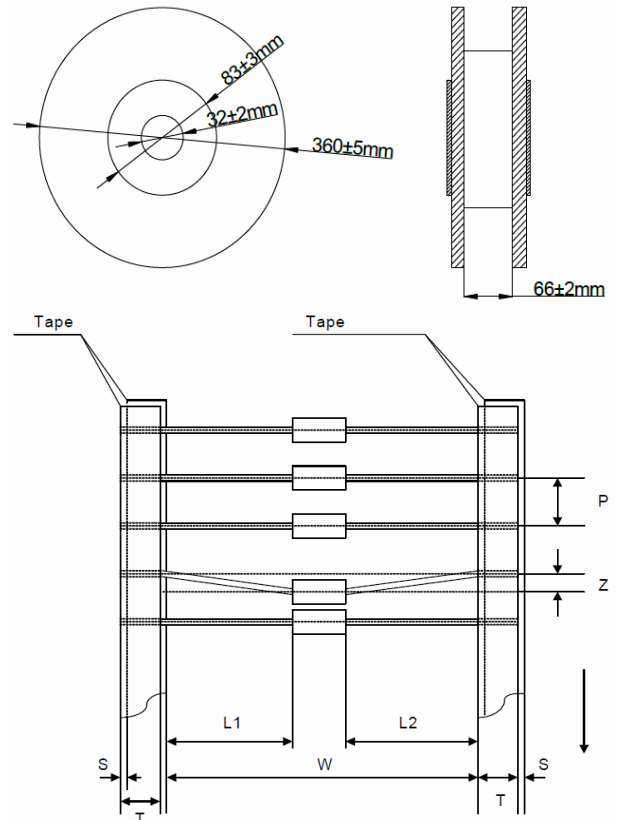
Packaging unit: 500 PCS per Bag
Weight: Per Bag appx. 0.072 kg

Tape & Reel

Packaging unit: 5.000 PCS taped on reel
Weight: Per Reel appx. 1.4 kg
Dimension (D x B): Ø 360 x 66mm
Inner diameter (D1): Ø 32mm

Dimension tape

W	P	L1-L2	T	Z	S
52	5.08	±0.69	0.55	1.2	0



All dimensions in mm

Specification assembled temperature sensor

PTC-1000(1%) - 2L - ETFE - 250mm - 30mm - PVDF

Sensor element:

PTC-600, PTC-1000, PTC-2000, ...

Number of wires:

2-Wire = 2L

Material Wire insulation:

ETFE

Wire length:

250mm

Length shrink tube:

30mm

Material shrink tube:

PVDF (Kynar)

Example: PTC-1000(1%)-2L-ETFE-250mm-30mm-PVDF

Other Specification are available on request

Changes and errors expected