

**Applications**

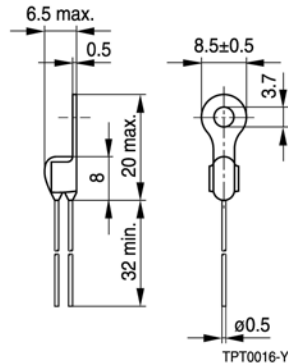
- Limit temperature sensor

**Features**

- Sensor with epoxy resin coating
- Tinned leads
- Metal tag for easy mounting
- Characteristics for sensing temperatures  
 $T_{\text{sense}} = 90$  to  $130$  °C conform with DIN 44081
- Metal tag permits good thermal coupling and thus short response time
- RoHS-compatible

**Delivery mode**

- Cardboard strips in cardboard box

**Dimensional drawing**


Dimensions in mm

**General technical data**

Max. operating voltage	$(T_A = 0 \dots 40 \text{ } ^\circ\text{C})$	$V_{\text{max}}$	30	V DC
Max. measuring voltage	$(T_A = -25 \text{ } ^\circ\text{C} \dots T_{\text{sense}} + 23 \text{ K})$	$V_{\text{meas,max}}$	7.5	V DC
Rated resistance	$(V_{\text{PTC}} \leq 2.5 \text{ V})$	$R_R$	$\leq 100$	$\Omega$
Insulating test voltage	(between tag and leads)	$V_{\text{ins}}$	500	V AC
Thermal threshold time		$t_a$	$< 20$	s
Operating temperature range	$(V \leq V_{\text{meas,max}})$	$T_{\text{op}}$	$-40 / T_{\text{sense}} + 23$	$^\circ\text{C}$
Operating temperature range	$(V = V_{\text{max}})$	$T_{\text{op}}$	$0 / +40$	$^\circ\text{C}$

**Electrical specifications and ordering codes**

$T_{\text{sense}}$  $^\circ\text{C}$	R $(T_{\text{sense}} - 5 \text{ K})$ $(V_{\text{PTC}} \leq 2.5 \text{ V})$ $\Omega$	R $(T_{\text{sense}} + 5 \text{ K})$ $(V_{\text{PTC}} \leq 2.5 \text{ V})$ $\Omega$	R $(T_{\text{sense}} + 15 \text{ K})$ $(V_{\text{PTC}} \leq 7.5 \text{ V})$ $\Omega$	R $(T_{\text{sense}} + 23 \text{ K})$ $(V_{\text{PTC}} \leq 2.5 \text{ V})$ $\Omega$	Stamp code	Ordering code
60	$\leq 570$	$\geq 570$	-	$\geq 10 \text{ k}$	331	B59901D0060A040
70	$\leq 570$	$\geq 570$	-	$\geq 10 \text{ k}$	341	B59901D0070A040
80	$\leq 570$	$\geq 570$	-	$\geq 10 \text{ k}$	351	B59901D0080A040
90	$\leq 550$	$\geq 1330$	$\geq 4 \text{ k}$	-	361	B59901D0090A040
100	$\leq 550$	$\geq 1330$	$\geq 4 \text{ k}$	-	371	B59901D0100A040
110	$\leq 550$	$\geq 1330$	$\geq 4 \text{ k}$	-	381	B59901D0110A040
120	$\leq 550$	$\geq 1330$	$\geq 4 \text{ k}$	-	391	B59901D0120A040
130	$\leq 550$	$\geq 1330$	$\geq 4 \text{ k}$	-	401	B59901D0130A040

**Reliability data**

Test	Standard	Test conditions	$ \Delta R_{25}/R_{25} $
Electrical endurance, constant	IEC 60738-1	Storage at $V_{\max}/T_{\text{op,max}}$ ( $V_{\max}$ ) Test duration: 1000 h	< 25%
Damp heat	IEC 60738-1	Temperature of air: 40 °C Relative humidity of air: 93% Duration: 56 days Test according to IEC 60068-2-78	< 10%
Rapid change of temperature	IEC 60738-1	$T_1 = T_{\text{op,min}}$ (0 V), $T_2 = T_{\text{op,max}}$ (0 V) Number of cycles: 5 Test duration: 30 min Test according to IEC 60068-2-14, Test Na	< 25%
Vibration	IEC 60738-1	Frequency range: 10 to 55 Hz Displacement amplitude: 0.75 mm Test duration: 3 × 2 h Test according to IEC 60068-2-6, Test Fc	< 5%

**Characteristics (typical)**

PTC resistance  $R_{PTC}$  versus

PTC temperature  $T_{PTC}$  (measured at low signal voltage)

