

Twin Vertical Surface-Mount PTC Thermistor for Telcom Overload Protection



KEY BENEFITS

- Very small footprint allows increased number of lines per PCB
- Matched pairs in one component significantly reduces assembly time
- Limited height and weight for high-speed pick-and-place circuit assembly
- Large flat pick-up ceramic area for easy placement
- Small ceramics for faster response time
- Four-spaced terminations for heat-flow regulation and improved mechanical stability
- RoHS compliant and suitable for lead (Pb)-bearing and lead (Pb)-free reflow soldering
- Compliant with the enhanced level requirements of ITU-K20-21-45

APPLICATIONS

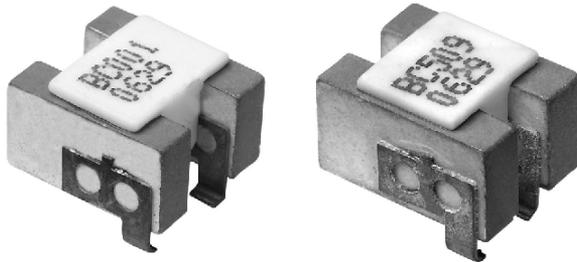
- Telecommunications infrastructure
- PABX
- Set-top boxes

RESOURCES

- Datasheet: PTCTT95RxxxGTE - <http://www.vishay.com/doc?29088>
- For technical questions contact nlr@vishay.com



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QUICK REFERENCE DATA

PARAMETER	VALUE	UNIT
Maximum voltage (RMS)	240	V
Temperature range	- 40 to + 85	°C
Climatic category	40/125/56	
Weight	~ 1.3	g

DESCRIPTION

The component consists of a high-performance PTC ceramic disc mounted in a lead-frame for direct soldering onto a printed-circuit board (PCB) or substrate.

The ceramic is soldered to the leadframe by a local reflow process, during which the solder layer is melted to the metallized ceramic surface using a low residue flux.

MARKING

- All TWIN Vertical SMD PTC's are marked with the last 3-digits of the type number (BCxxx) and a date code (YYWW)

FEATURES

- Very small footprint, allowing to increase the number of lines per PCB
- Matched pairs in one component, significantly reducing the assembly time
- Narrow tracking between the 2 PTC's over a wide temperature range (matching at 85 °C: $\leq 2 \times$ matching at 25 °C)
- Limited height and weight, used on high speed pick-and-place circuit assembly
- Flat pick-up ceramic area for easy placement
- Small ceramics for faster response time
- Thermal coupled PTC's for enhanced protection
- Coated versions available on request
- Four spaced terminations for heat flow regulation and improved mechanical stability
- Small and large pitch available
- Compliant with the enhanced level requirements of ITU - K20-21-45 edition 2003
- Suitable for Pb-bearing and lead (Pb)-free reflow soldering
- Compliant to RoHS directive 2011/65/EU and in accordance to WEEE 2002/96/EC

RoHS
COMPLIANT

APPLICATIONS

Over-temperature/over-load protection:

- Telecom
 - Telecommunications infrastructure
 - PABX
 - Set-top box

MOUNTING

With a flat pick-up area = 30 mm² the PTC thermistors are suitable for processing on high speed automatic insertion equipment.

Typical soldering

235 °C, duration: 5 s (Pb-bearing)

245 °C, duration: 5 s (Lead (Pb)-free)

Resistance to soldering heat

260 °C, duration: 10 s max.

ELECTRICAL DATA

R_{25} $\pm 20\%$ (Ω)	MATCHING (Ω)	$V_{max.}$ (V _{RMS})	I_{nt} at			I_t (mA)	MAX. TRIP-TIME at 1 A (s)	$I_{max.}$ at $V_{max.}$ (A)	I_{res} (2 PIECES POWERED) at $V_{max.}$ (mA)
			25 °C (mA)	70 °C (mA)	85 °C (mA)				
10	0.5	240	140	85	55	300	4.0	4.0	12.0
20	0.5	240	90	60	40	200	2.0	8.0	12.0
25	0.5	240	100	60	40	200	2.0	4.0	12.0
35	1.0	240	100	60	40	200	1.5	4.0	12.0
50	1.0	240	90	50	35	190	1.2	2.5	12.0

Note

(1) All data is measured at 25 °C unless otherwise specified