

## SMD 0805, PTC Thermistors for Over-Temperature Protection



### FEATURES

- Well-defined protection temperature levels
- Very fast reaction time
- Accurate resistance for ease of circuit design
- Excellent long term behavior
- Small size and rugged
- UL approved according standard UL1434 (file: E148885)
- PTC thermistor with lead (Pb)-free terminations
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC



**RoHS**  
COMPLIANT

### QUICK REFERENCE DATA

PARAMETER	VALUE	UNIT
Resistance at 25 °C	470 ± 50 %	Ω
Maximum resistance at - 40 °C	2500	Ω
Maximum resistance at (T <sub>n</sub> - 5) °C	4700	Ω
Minimum resistance at (T <sub>n</sub> + 5) °C	4700	Ω
Minimum resistance at (T <sub>n</sub> + 15) °C	15 000	Ω
Maximum voltage	25	V
Dissipation factor	± 3.5	mW/K
Temperature range	- 40 to (T <sub>n</sub> + 15)	°C
Weight	± 0.015	g
Climatic category	40/125/56	

### APPLICATIONS

Over-temperature protection and control in:

- Industrial electronics
- Power supplies
- Electronic data processing
- Motor protection
- Electronic ballasts
- DC-to-DC convertors

### DESCRIPTION

These directly heated thermistors have a positive temperature coefficient and are primarily intended for sensing.

### NOMINAL WORKING TEMPERATURES AND ORDERING INFORMATION

CODE NUMBERS 2381 675....	T <sub>n</sub> (°C)	R <sub>max.</sub> at T <sub>n</sub> - 5 °C (Ω)	R <sub>min.</sub> at T <sub>n</sub> + 5 °C (Ω)	R <sub>min.</sub> at T <sub>n</sub> + 15 °C (Ω)
20707	70	4700	4700	15 000
20807	80	4700	4700	15 000
20907	90	4700	4700	15 000
21007	100	4700	4700	15 000
21107	110	4700	4700	15 000
21207	120	4700	4700	15 000
21307	130	4700	4700	15 000
21407	140	4700	4700	15 000

#### Note

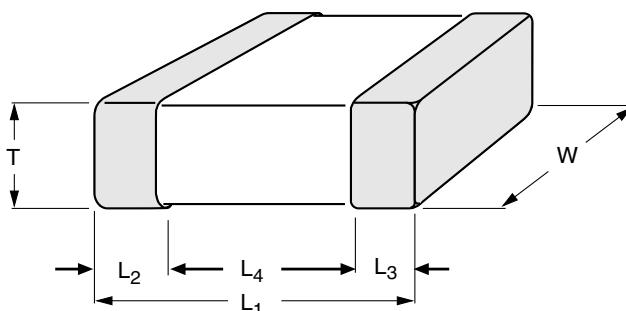
- Other sizes are available on request

**ELECTRICAL CHARACTERISTICS**

PARAMETER	VALUES
Resistance at 25 °C	470 $\Omega \pm 50 \%$
Maximum resistance at - 40 °C	2500 $\Omega$
Maximum resistance at ( $T_n - 5$ ) °C	4700 $\Omega$
Minimum resistance at ( $T_n + 5$ ) °C	4700 $\Omega$
Minimum resistance at ( $T_n + 15$ ) °C	15 000 $\Omega$
Maximum voltage	25 V (AC or DC)

**CATALOG NUMBERS AND PACKAGING**

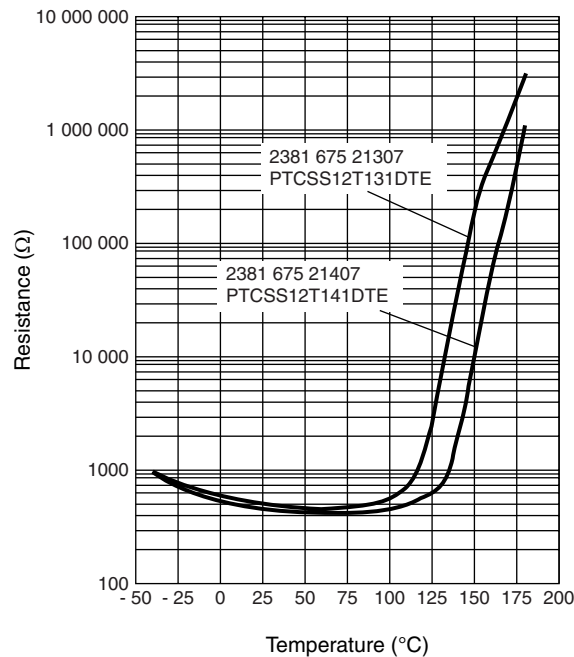
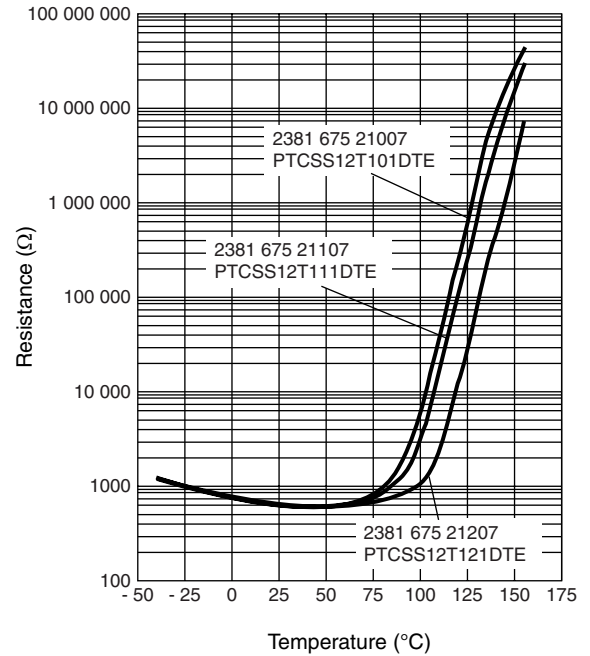
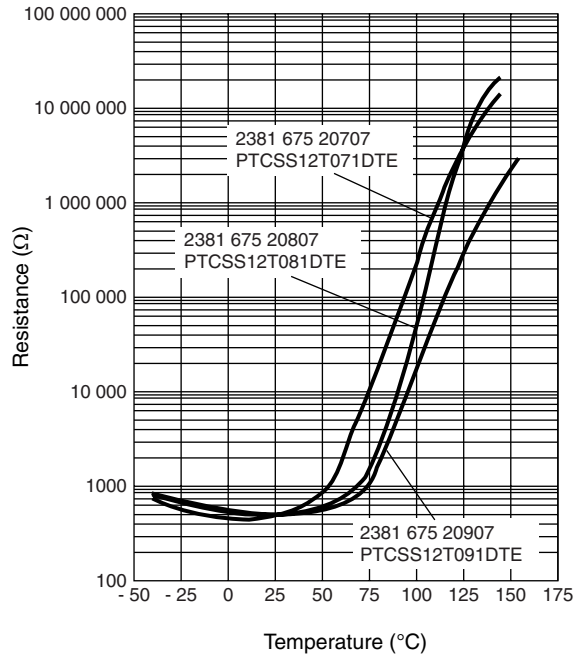
12NC	SAP	SPQ
2381 675 20707	PTCSS12T071DTE	4000
2381 675 20807	PTCSS12T081DTE	4000
2381 675 20907	PTCSS12T091DTE	4000
2381 675 21007	PTCSS12T101DTE	4000
2381 675 21107	PTCSS12T111DTE	4000
2381 675 21207	PTCSS12T121DTE	4000
2381 675 21307	PTCSS12T131DTE	4000
2381 675 21407	PTCSS12T141DTE	4000

**COMPONENT OUTLINE DIMENSIONS** in millimeters

$L_1$	$W$	$T$	$L_2$ and $L_3$ MIN.
2.00 $\pm$ 0.2	1.25 $\pm$ 0.2	0.90 $\pm$ 0.15	0.4 $\pm$ 0.25



### TYPICAL RESISTANCE/TEMPERATURE CHARACTERISTIC





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