



PTC Thermistors

Selection guide

Date: February 2012





Selection guide

PTC thermistors for overcurrent protection

Type	V_R V	I_R mA	I_S mA	T_{ref} °C	R_R Ω	Page
 <p>C945 A 120 1151</p>	12	150 ... 1500	300 ... 3050	160	0.45 ... 13	
	12, 24	120 ... 1800	240 ... 3600	120	0.3 ... 13	
	63	30 ... 1000	60 ... 1500	80, 120, 130	1.2 ... 62	
 <p>C830 A 120 1151</p>	110	35 ... 525	70 ... 1050	160	3.7 ... 150	
	230	15 ... 650	40 ... 980	80, 120, 130	3.5 ... 160	
	230 Lead-free series	50 ... 220	75 ... 330	120	10 ... 120	
	380, 500	12 ... 21	24 ... 39	115, 120	600 ... 1500	




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Type	V_R V	I_R mA	I_S mA	T_{ref} °C	R_R Ω	Page
	380 ... 1000	8 ... 123	17 ... 245	110, 115, 120	25 ... 7500	
	500	2.5, 4	6.5, 9	60	3500, 5500	
SMD  Case sizes 0603 and 1210	24, 42, 63, 230	12 ... 90	22 ... 180	–	27 ... 1500	
SMD  Case sizes 3225 and 4032	24 63	90 ... 310 40 ... 150	185 ... 640 85 ... 310	80, 120 80, 120	3.1 ... 13 16 ... 55	


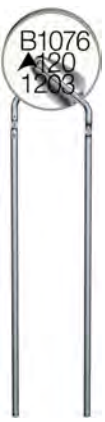
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Inrush current limiters

Type	V_{link}	R_R Ω	C_{th} J/K	Page
Leaded disks, uncoated				
	360, 620	70 ... 500	0.4, 0.6	
	360, 620, 800	25 ... 500	1.0, 1.4	
Leaded disks, coated				
	620	56, 120	2.1	
PTC thermistors in phenolic resin plastic case				
	360, 620, 800	22, 56, 100	2.3	




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PTC thermistors for telecom applications

Type	R_R Ω	I_R @ 70 °C mA	I_S @ 25 °C mA	Page
Leadless disks				
	4.75 ... 35	55 ... 100	180 ... 370	
Leaded disks				
	4.75 ... 55	35 ... 110	150 ... 440	



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PTC thermistors for telecom applications


Type	R_R Ω	I_R @ 70 °C mA	I_S @ 25 °C mA	Page
Telecom pair protector (TPP)				
SMD 	4.75 ... 75	40 ... 120	150 ... 370	
Telecom pair protector (TPP) for GR-1089 Central Office				
SMD 	70	40	150	
Telecom quattro protector (TQP)				
SMD 	50	60	190	

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PTC thermistors for switching applications (e.g. lighting, general-purpose)




Type	V_{\max} V	I_R mA	I_S mA	T_{ref} °C	R_R Ω	Page
 	310, 550	–	–	80, 120	70 ... 1500	
	265	7 ... 20	15 ... 40	115, 120, 190	500 ... 5000	

PTC thermistors for motor starting

Type	R_R Ω	I_{\max} A	V_{\max} V	T_{ref} °C	Page
	4.7 ... 38	6 ... 12	180 ... 400	120, 135	
	4.7 ... 33	6 ... 12	180 ... 355	135	

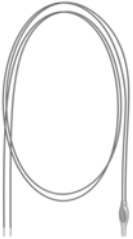

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PTC thermistors as point level sensors

Type	V _{max} V DC	t _E s	R _R Ω	Page
Overflow protection in oil tanks				
	25	40	140	
Oil level sensing				
	18	60	40 ... 80	
Water level sensing				
	18	60	40 ... 80	




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PTC thermistors for motor protection

Type	V_{\max} V DC	T_{sense} °C	R_R Ω	Page
	30	60 ... 180	≤ 100	
	30	100 ... 180	≤ 300	

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PTC thermistors as limit temperature sensors

Type	V _{max} V DC	T _{sense} °C	R _R Ω	Page
	30	60 ... 160	≤ 250	
	30	60 ... 150	≤ 100	
	30	60 ... 120	≤ 100	

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SMD

PTC thermistors as limit temperature sensors







EIA case size	V_{\max} V DC	T_{sense} °C	R_R Ω	Page
Superior series				
0402	32	75 ±5 ... 135 ±5	470	
0603	32	75 ±5 ... 145 ±5	470	
0805	32	70 ±5 ... 130 ±5	680	
Standard series				
0603	32	75 ±5 ... 135 ±5	470	
0603	32	75 ±3 ... 135 ±3	470	
0603	32	55 ±5 ... 105 ±5	110, 470	
0805	32	70 ±5 ... 140 ±5	680	

PTC thermistors for thermal management in LED

0603	32	55, 70, 85, 105	110, 470	
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PTC thermistors as heating elements

Type	Size mm	V_R V	T_{ref} °C	R_R ($V_{meas} \leq 1.5$ V) Ω	Page
	Round disk 12 × 1	12	0 ... 220	9, ≥ 320	
	Rectangular disk 35 × 6.2 × 1.4	12	80 ... 220	3.2, 6.4	
	Round disk 8 × 3	230	110 ... 220	4200, 6000	
	Rectangular disk 35 × 6.2 × 2	230	50 ... 270	700, 1000, 1300	