Applications

- Overcurrent and short-circuit protection

Features

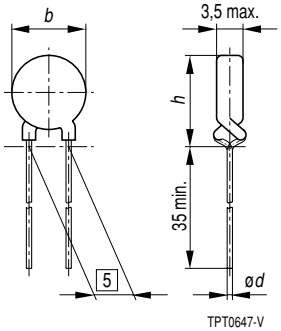
- Lead-free terminals
- Manufacturer's logo and type designation stamped on in white
- Low resistance
- For rated currents of up to 1,8 A
- UL approval to UL 1434 for V_{max} = 15 V and V_N = 12 V (file number E69802)
- VDE approval (license number 104843 E)

Options

- Leadless disks and leaded disks without coating available on request
- Thermistors with diameter $b \leq 11{,}0$ mm are also available on tape (to IEC 60286-2)

Delivery mode

- Cardboard strips (standard)
- Cardboard tape reeled or in AMMO pack on request



Dimensions (mm)

Type	b_{max}	∅d	h_{max}
C 935	22,0	0,6	25,5
C 945	17,5	0,6	21,0
C 955	13,5	0,6	17,0
C 965	11,0	0,6	14,5
C 975	9,0	0,6	12,5
C 985	6,5	0,6	10,0
C 995	4,0	0,5	7,5

General technical data

Max. operating voltage (T_A = 60 °C)	V_{max}	30	VDC or VAC
Rated voltage	V_N	12, 24	VDC or VAC
Switching cycles (typ.)	N	100	
Reference temperature (typ.)	T_{Ref}	120	°C
Resistance tolerance	ΔR_N	± 25 %	
Operating temperature range (V = 0)	T_{op}	– 40/+ 125	°C
($V = V_{max}$)	T_{op}	0/+ 60	°C

Electrical specifications and ordering codes

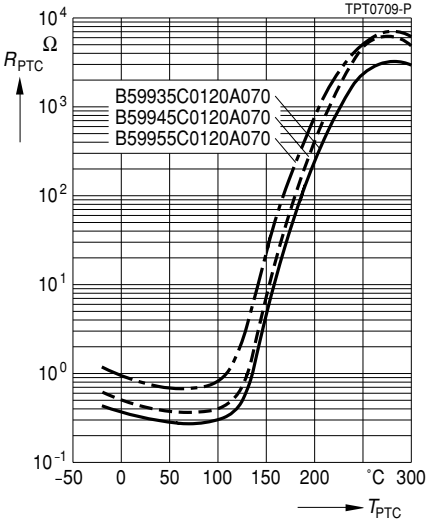
Type	I_N mA	I_S mA	I_{Smax} ($V=V_{max}$) A	I_r (typ.) ($V=V_{max}$) mA	R_N Ω	R_{min} Ω	Ordering code
C 935	1800	3600	10,0	170	0,3	0,2	B59935C0120A070
C 945	1300	2600	8,0	115	0,45	0,3	B59945C0120A070
C 955	850	1700	5,5	80	0,8	0,5	B59955C0120A070
C 965	600	1200	4,3	70	1,2	0,7	B59965C0120A070
C 975	450	900	3,0	60	1,8	1,1	B59975C0120A070
C 985	250	500	1,0	45	4,6	2,7	B59985C0120A070
C 995	120	240	0,7	25	13	7,8	B59995C0120A070

Reliability data

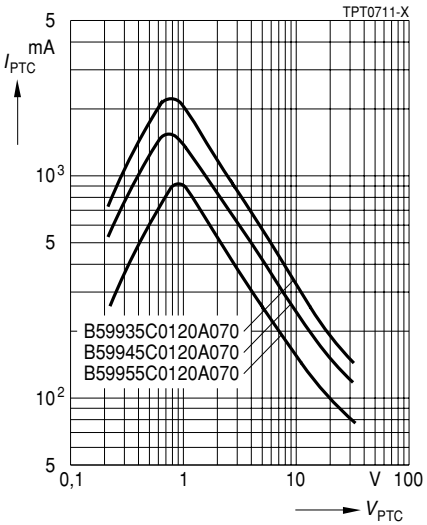
Test	Standard	Test conditions	$\lvert\Delta R_{25}/R_{25}\rvert$
Switching test at room temperature	IEC 60738-1	I_{Smax} V_{max} Number of cycles: 100	< 25%
Dry heat at upper category temperature	IEC 60738-1	Storage at upper category temperature for t: 1000 h	< 25%
Life test at V_{max}/T_{op}	IEC 60738-1	Storage at V_{max}/T_{op} for t: 1000 h	< 25%
Storage in damp heat	IEC 60068-2-3	Temperature of air: 40 °C Relative humidity of air: 93% Duration: 56 days	< 10%
Rapid change of temperature in air	IEC 60068-2-14, Test N_a	$T = T_{LCT}$, $T = T_{UCT}$ Number of cycles: 5 t: 30 min	< 10%
Vibration	IEC 60068-2-6, Test F_C	f = 10–55 Hz h = 0,75 mm (respectively 10 g) t: 3 · 2 h	< 5%
Bump	IEC 60068-2-27	Pulse shape: half-sine a: = 50 g Pulse duration: 1 ms; 6 · 3 pulses	< 5%
Climatic sequence	IEC 60068-2-30	Dry heat: $T = T_{UCT}$ t: 16 h Damp heat first cycle Cold: $T = T_{LCT}$ t: 2 h Damp heat 5 cycles	< 10%

Characteristics (typical)

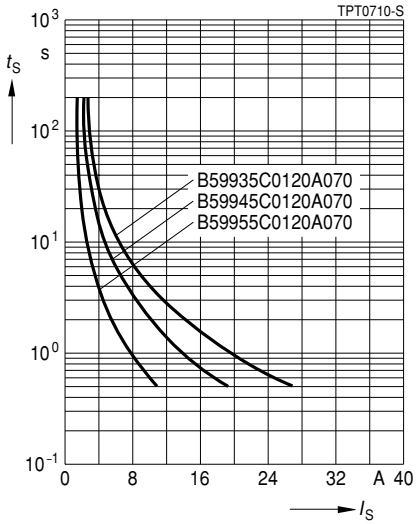
PTC resistance R_{PTC} versus PTC temperature T_{PTC} (measured at low signal voltage)



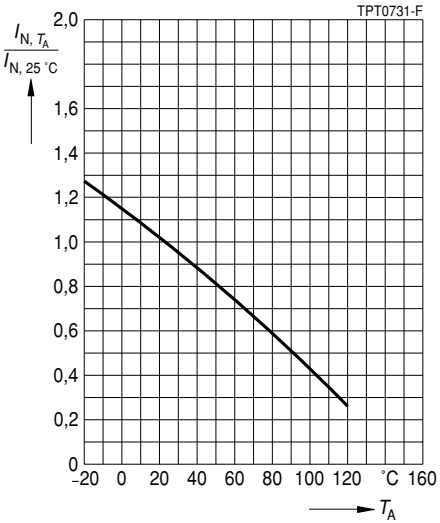
PTC current I_{PTC} versus PTC voltage V_{PTC} (measured at 25 °C in still air)



Switching time t_S versus switching current I_S (measured at 25 °C in still air)

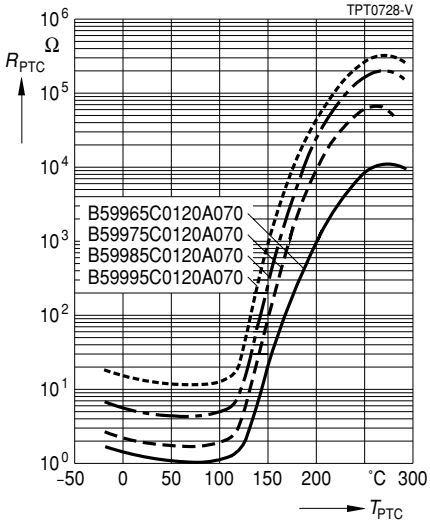


Rated current I_N versus ambient temperature T_A (measured in still air)

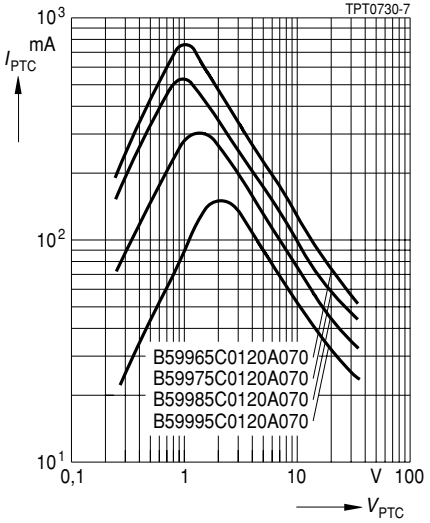


Characteristics (typical)

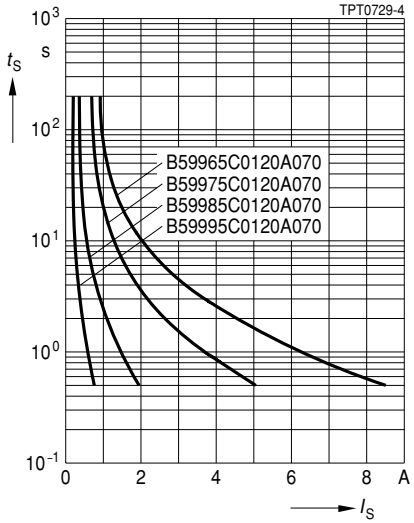
PTC resistance R_{PTC} versus PTC temperature T_{PTC} (measured at low signal voltage)



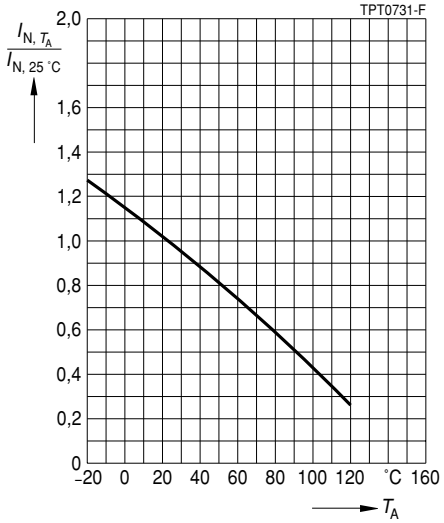
PTC current I_{PTC} versus PTC voltage V_{PTC} (measured at 25 °C in still air)



Switching time t_S versus switching current I_S (measured at 25 °C in still air)



Rated current I_N versus ambient temperature T_A (measured in still air)



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