



Overcurrent Protection

B598*0

Leaded Disks, Coated, 110 V

C 830 ... C 890

Applications

- Overcurrent and short-circuit protection

Features

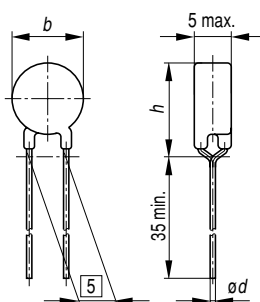
- Lead-free terminals
- Manufacturer's logo and type designation stamped on in yellow
- UL approval to UL 1434 with $V_{\max} = 125$ V and $V_N = 110$ V (file number E69802)
- VDE approval (license number 104843 E)

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



TPT0648-4

Dimensions (mm)

Type	$b_{\max}$	$\varnothing d$	$h_{\max}$
C 830	22,0	0,6	25,5
C 840	17,5	0,6	21,0
C 850	13,5	0,6	17,0
C 860	11,0	0,6	14,5
C 870	9,0	0,6	12,5
C 880	6,5	0,6	10,0
C 890	4,0	0,5	7,5

General technical data

Max. operating voltage ($T_A = 60$ °C)	$V_{\max}$	160	VDC or VAC
Rated voltage	V_N	110	VDC or VAC
Switching cycles (typ.)	N	100	
Reference temperature (typ.)	T_{Ref}	160	°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	I_S	$I_{S\max}$ ($V = V_{\max}$)	I_r (typ.) ($V = V_{\max}$)	R_N	$R_{\min}$	Ordering code
	mA	mA	A	mA	Ω	Ω	
C 830	525	1050	7,0	24	3,7	2,2	B59830C0160A070
C 840	400	800	4,1	18	6	3,6	B59840C0160A070
C 850	250	500	2,2	16	10	6,0	B59850C0160A070
C 860	180	360	1,5	13	15	7,8	B59860C0160A070
C 870	125	250	1,0	11	25	13,1	B59870C0160A070
C 880	70	140	0,4	8	70	36,7	B59880C0160A070
C 890	35	70	0,2	6	150	78,7	B59890C0160A070



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Reliability data

Test	Standard	Test conditions	$ \Delta R_{25}/R_{25} $
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%



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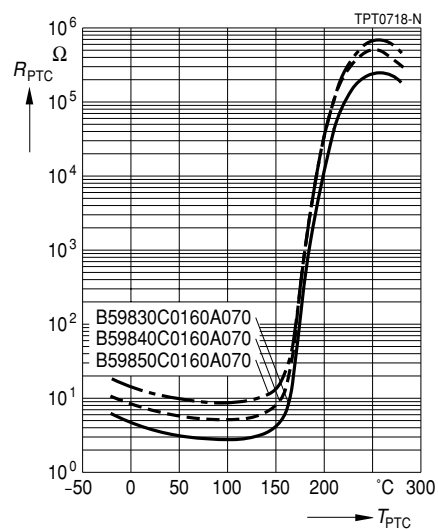
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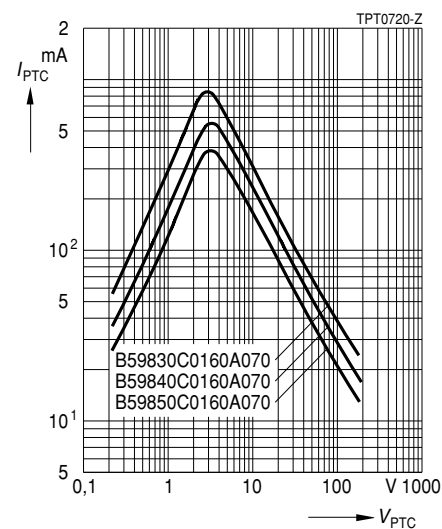
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Characteristics (typical)

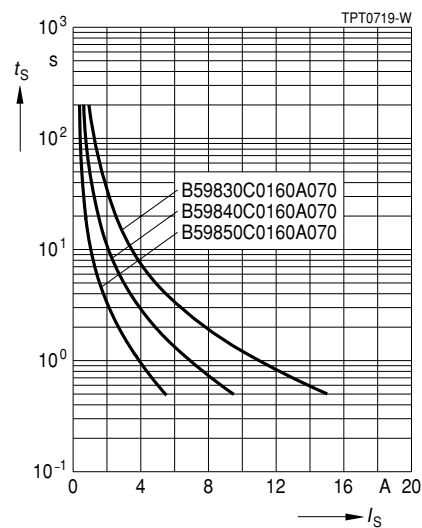
PTC resistance R_{PTC} versus
PTC temperature T_{PTC}
(measured at low signal voltage)



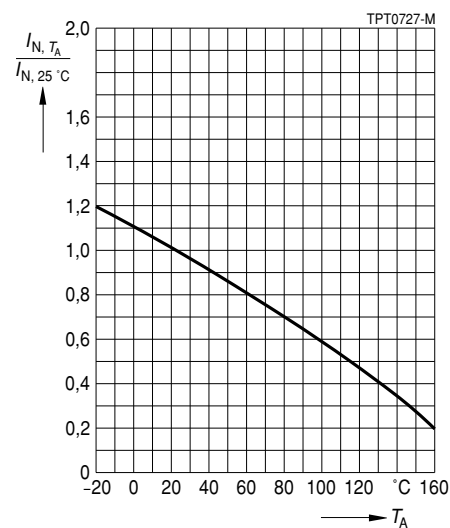
PTC current I_{PTC} versus PTC voltage V_{PTC}
(measured at 25 °C in still air)



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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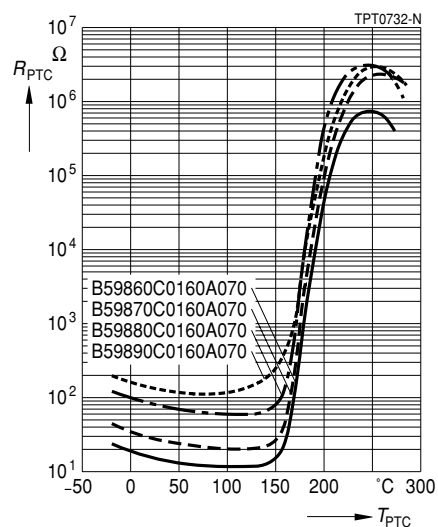
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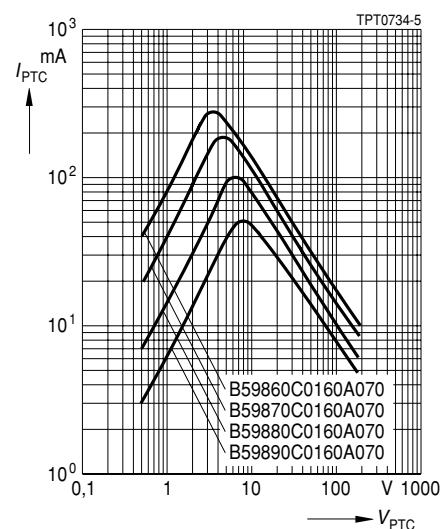
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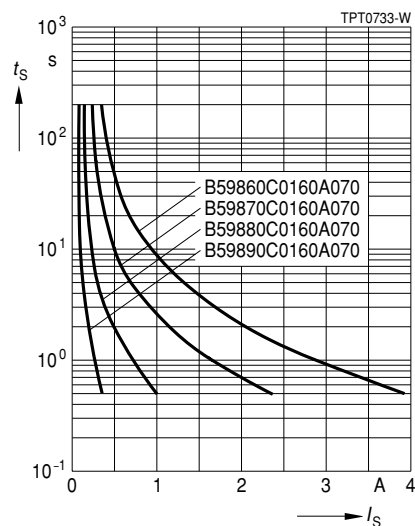
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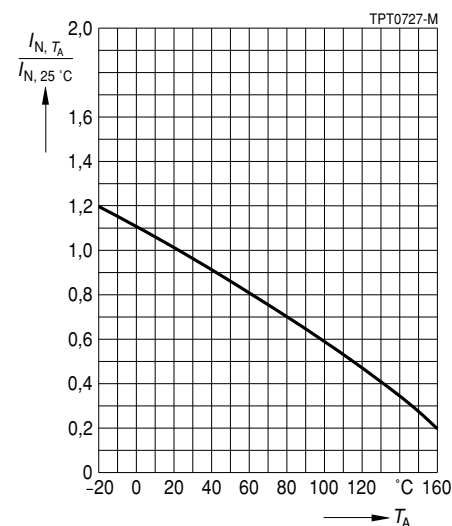
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