



## PTC Thermistors for Telecom

## MDF Applications, Leaded Disks

**Series/Type: B59\*\*\***

Release:

Date:

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**Applications**

- Overcurrent protection in telecom equipment (switching systems and customer premises equipment)

**Features**

- Compliant with ITU-T K20, K21, K45
  - basic level lightning surges (10/700  $\mu$ s)
  - basic level power induction (600 V, 1 A, 0.2 s)
  - power contact criteria A/B (230 V, 15 min.)
- Suitable for continuous connection to mains voltages of 110/230 VAC in tripped (high ohmic) condition
- Narrow resistance tolerance

**Options**

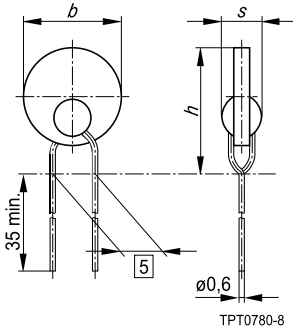
- Alternative tolerances and resistances on request

**Delivery mode**

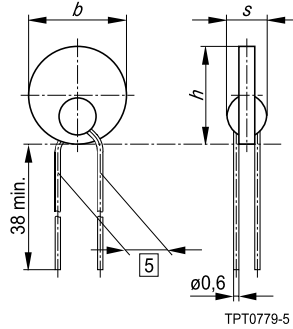
- Cardboard tape, reeled (standard) or in Ammo pack (on request); cardboard strips (on request)
- Exception: B1610, cardboard strips (standard), cardboard tape or Ammo pack on request

**Dimensional drawings**

**Kinked leads**



**Straight leads**



**Dimensions (mm)**

Type	Leads	$b_{max}$	$h_{max}$	$S_{max}$
B1048	kinked	7.7	12.0	5.0
B1042	kinked	8.2	12.1	4.0
B1610	kinked	10.2	13.1	5.0
B1012	kinked	6.0	10.0	4.0
B1084	kinked	6.6	9.5	4.0
B1048	straight	7.7	7.7	5.0

Type	Leads	$b_{max}$	$h_{max}$	$S_{max}$
B1042	straight	8.2	8.2	4.0
B1012	straight	6.0	6.0	4.0
B1084	straight	6.6	6.6	5.0
B1069	straight	5.2	5.2	3.2
B1069	straight	5.2	5.2	3.2

**General technical data**

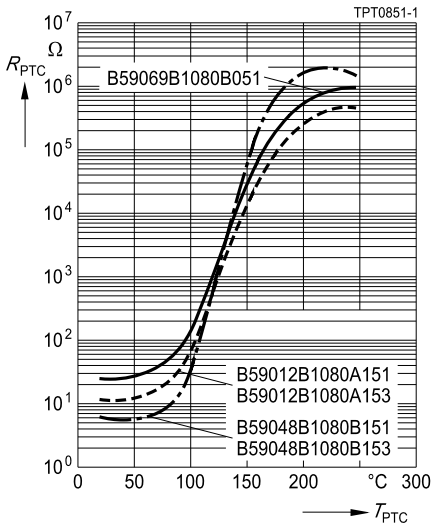
Rated voltage	$V_R$	60	VDC
Max. switching voltage	$V_{Smax}$	265	VAC
Tolerance of $R_R$	$\Delta R_R$	$\pm 20$	%
Operating temperature range	$T_{op}$	-25/+125	°C
	$T_{op}$	0/+60	°C

**Electrical specifications and ordering codes**

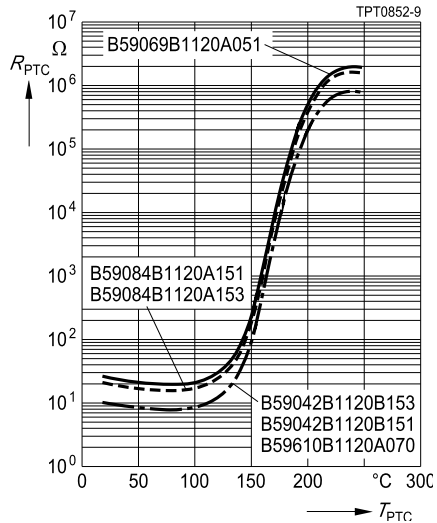
Type	$R_R$ $\Omega$	$R_{25,match}$ (per packing unit) $\Omega$	$I_R$ @ 25 °C mA	$I_R$ @ 40 °C mA	$I_S$ @ 25 °C mA	$I_{Smax}$ @ 230 VAC A	$t_s$ @ $I_{Smax}$ , 230 VAC s	Ordering code
<b>Leads = kinked</b>								
B1012	12	$\pm 0.5$	100	85	300	1.0	< 2.0	B59012B1080A151
B1042	10	$\pm 0.5$	150	135	300	1.0	< 7.0	B59042B1120B151
B1048	6	$\pm 0.4$	150	120	250	2.5	< 1.8	B59048B1080B151
B1084	20	$\pm 0.25$	145	100	250	3.0	< 0.2	B59084B1120A151
B1610	10	not matched	150	135	300	10.0	< 0.2	B59610B1120A070
<b>Leads = straight</b>								
B1012	12	$\pm 0.5$	100	85	300	1.0	< 2.0	B59012B1080A153
B1042	10	$\pm 0.5$	150	135	300	1.0	< 7.0	B59042B1120B153
B1048	6	$\pm 0.4$	150	120	250	2.5	< 1.8	B59048B1080B153
B1069	25	not matched	85	75	170	1.0	< 0.7	B59069B1120A051
B1069	25	not matched	55	45	110	1.0	< 0.4	B59069B1080B051
B1084	20	$\pm 0.25$	145	100	250	3.0	< 0.2	B59084B1120A153

**Characteristics (typical)**

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



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



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

