



PTC Thermistors
for Telecom

MDF Applications,
Leaded Disks

Series/Type: B59***

Release:

Date:



Telecom

B59***

MDF Applications, Leaded Disks

B1***

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 μ 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

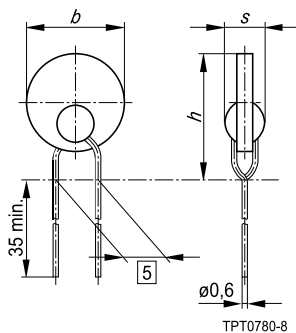
- Alternative tolerances and resistances on request

Delivery mode

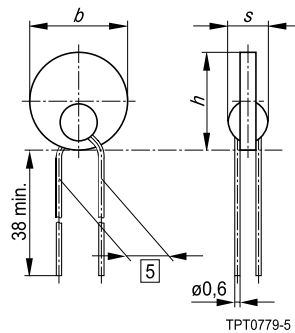
- Cardboard tape, reeled (standard) or in Ammo pack (on request); cardboard strips (on request)
- Exception: B1610, cardboard strips (standard), cardboard tape or Ammo pack on request

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 |



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General technical data

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

Electrical specifications and ordering codes

| Type | R_R Ω | $R_{25,match}$ (per packing unit) Ω | I_R @ 25 °C mA | I_R @ 40 °C mA | I_S @ 25 °C mA | I_{Smax} @ 230 VAC A | t_s @ I_{Smax} s | Ordering code |
|------|------------|---|------------------------|------------------------|------------------------|------------------------------|----------------------------|---------------|
|------|------------|---|------------------------|------------------------|------------------------|------------------------------|----------------------------|---------------|

Leads = kinked

| | | | | | | | | |
|-------|----|-------------|-----|-----|-----|------|-------|-----------------|
| B1012 | 12 | ± 0.5 | 100 | 85 | 300 | 1.0 | < 2.0 | B59012B1080A151 |
| B1042 | 10 | ± 0.5 | 150 | 135 | 300 | 1.0 | < 7.0 | B59042B1120B151 |
| B1048 | 6 | ± 0.4 | 150 | 120 | 250 | 2.5 | < 1.8 | B59048B1080B151 |
| B1084 | 20 | ± 0.25 | 145 | 100 | 250 | 3.0 | < 0.2 | B59084B1120A151 |
| B1610 | 10 | not matched | 150 | 135 | 300 | 10.0 | < 0.2 | B59610B1120A070 |

Leads = straight

| | | | | | | | | |
|-------|----|-------------|-----|-----|-----|-----|-------|-----------------|
| B1012 | 12 | ± 0.5 | 100 | 85 | 300 | 1.0 | < 2.0 | B59012B1080A153 |
| B1042 | 10 | ± 0.5 | 150 | 135 | 300 | 1.0 | < 7.0 | B59042B1120B153 |
| B1048 | 6 | ± 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 | ± 0.25 | 145 | 100 | 250 | 3.0 | < 0.2 | B59084B1120A153 |



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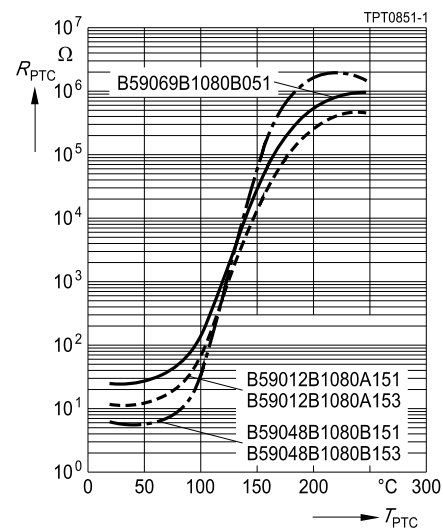
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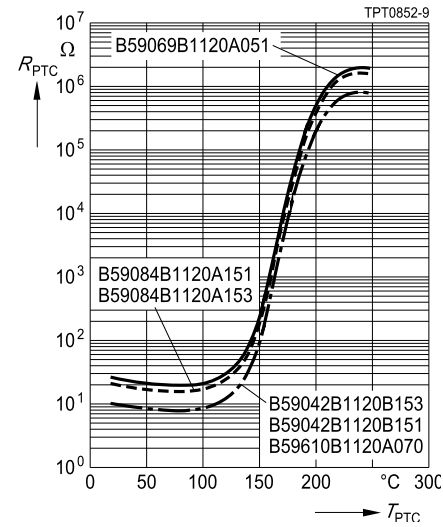
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Characteristics (typical)

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



PTC 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)

