PTC Thermistors for Telecom

Line Card Applications, SMDs

Series/Type: B590**

Release:

Date:

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SMD

Applications

- Overcurrent protection for line cards

Features

- Compliant with ITU-T K20, K21, K45
  - basic level lightning surges (10/700 µs)
  - 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
- For surface mounting onto PCB
- Marked with manufacturer's logo and type designation
- Narrow resistance tolerance
- UL approval to UL 1434 with V_{max} = 245 V and V_R = 220 V (file number E69802)

Options

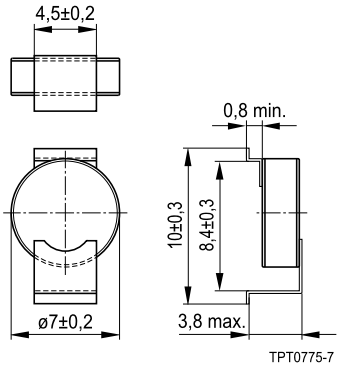
- Alternative tolerances and resistances on request

Delivery mode

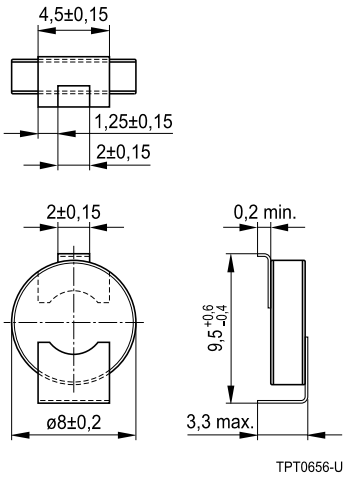
- Blister tape, 330-mm reel

Dimensional drawings

Version: Gamma L



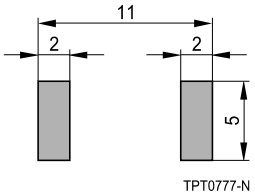
Version: Gamma I



Dimensions in mm

Recommended solder pads

Version: Gamma L



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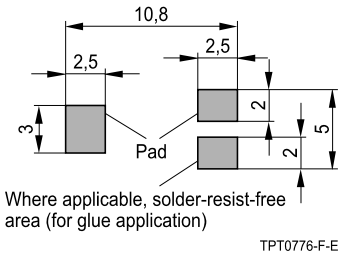


Dimensions in mm

General technical data

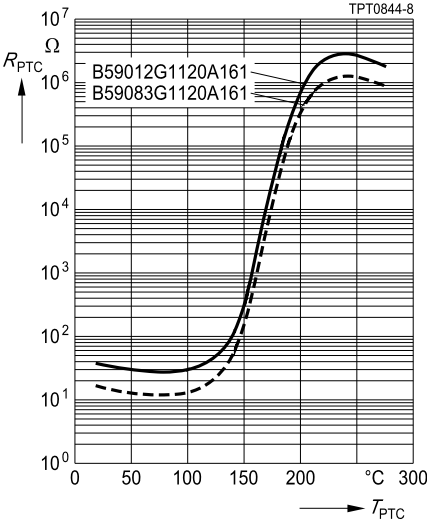
Rated voltage		V_R	60	VDC
Max. switching voltage		V_{Smax}	265	VAC
Tolerance of R_R		ΔR_R	±20	%
Resistance matching per reel		$R_{25,match}$	±0.5	Ω
Operating temperature range	(V = 0)	T_{op}	−25/+125	°C
	(V = 230 V)	T_{op}	0/+60	°C

Electrical specifications and ordering codes

Type	R_R	R_{min}	I_R @ 25 °C	I_R @ 70 °C	I_S @ 25 °C	I_{Smax} @ 230 VAC	t_S @ I_{Smax}, 230 VAC	Ordering code
	Ω	Ω	mA	mA	mA	A	s	
Gamma I								
G1085	10	6.5	180	130	360	1.0	< 5.0	B59085G1120A161
G1083	16	10	150	105	300	1.5	< 2.0	B59083G1120A161
G1080	25	15	130	85	270	2.8	< 0.3	B59080G1120B262
G1084	50	30	90	50	190	2.5	< 0.2	B59084G1120A161
Gamma L								
G1040	25	16	110	70	250	4.0	< 0.2	B59040G1120B161
G1012	35	23	100	70	250	4.6	< 0.2	B59012G1120A161

Characteristics (typical)

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



PTC resistance R_{PTC} versus
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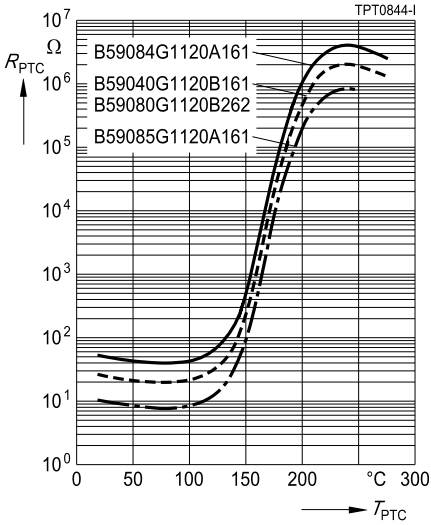

Rated current I_R versus ambient temperature T_A
(measured in still air)