



PTC Thermistors
for Telecom

Line Card Applications,
SMDs

Series/Type: B590**

Release:

Date:

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Telecom

B590**

Line Card Applications, SMDs

G10**

SMD

Applications

- Overcurrent protection for line cards

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
- 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

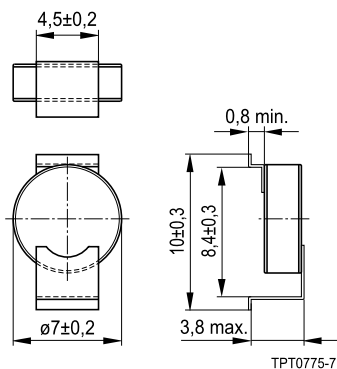
- Alternative tolerances and resistances on request

Delivery mode

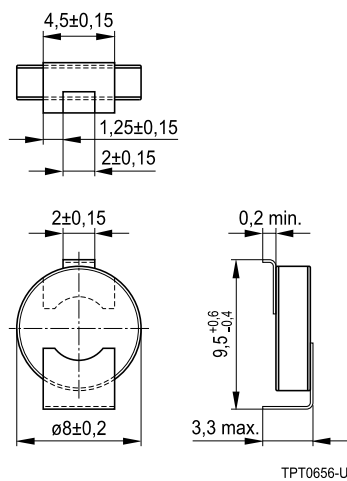
- Blister tape, 330-mm reel

Dimensional drawings

Version: Gamma L



Version: Gamma I



Dimensions in mm



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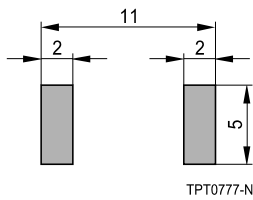
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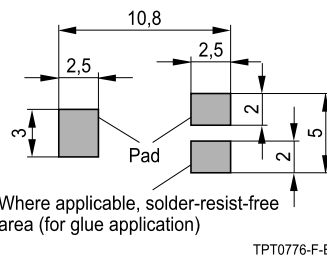
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Recommended solder pads

Version: Gamma L



Version: Gamma I



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	T_{op}	$-25/+125$	$^{\circ}C$
		$0/+60$	$^{\circ}C$

Electrical specifications and ordering codes

Type	R_R	R_{min}	I_R @ 25 $^{\circ}C$	I_R @ 70 $^{\circ}C$	I_S @ 25 $^{\circ}C$	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



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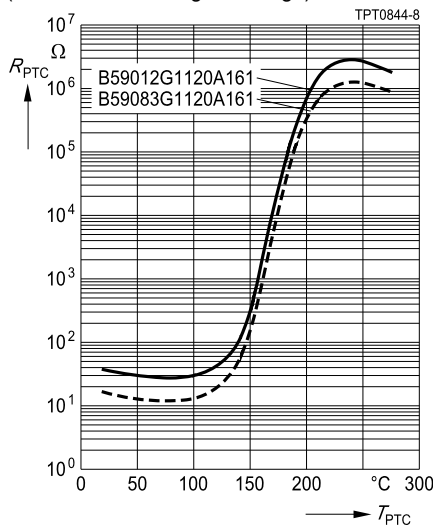
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Line Card Applications, SMDs

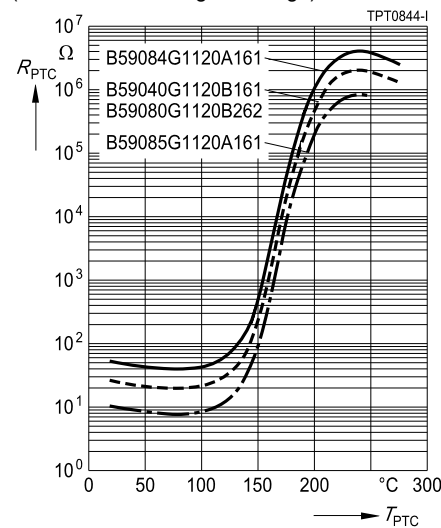
G10**

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)

