



## PTC Thermistors for Telecom

## Line Card Applications, SMDs

**Series/Type: B590\*\***

Release:

Date:

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**Applications**

- Overcurrent protection for line cards

**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
- 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**

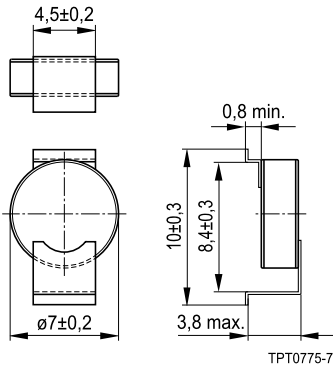
- Alternative tolerances and resistances on request

**Delivery mode**

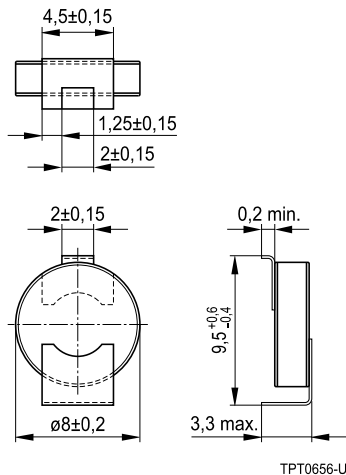
- Blister tape, 330-mm reel

**Dimensional drawings**

Version: Gamma L



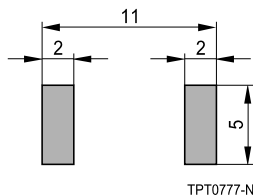
Version: Gamma I



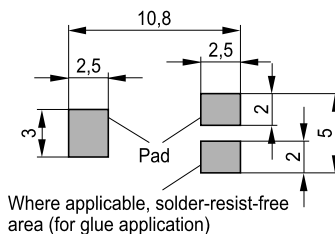
Dimensions in mm

**Recommended solder pads**

Version: Gamma L



Version: Gamma I



Dimensions in mm

**General technical data**

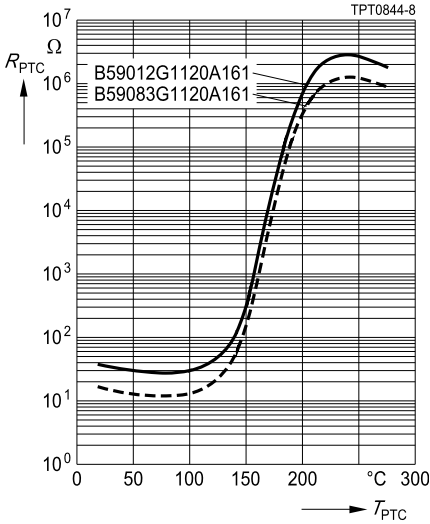
Rated voltage	$V_R$	60	VDC
Max. switching voltage	$V_{Smax}$	265	VAC
Tolerance of $R_R$	$\Delta R_R$	$\pm 20$	%
Resistance matching per reel	$R_{25,match}$	$\pm 0.5$	$\Omega$
Operating temperature range	$T_{op}$	$-25/+125$	$^{\circ}C$
	$T_{op}$	$0/+60$	$^{\circ}C$

**Electrical specifications and ordering codes**

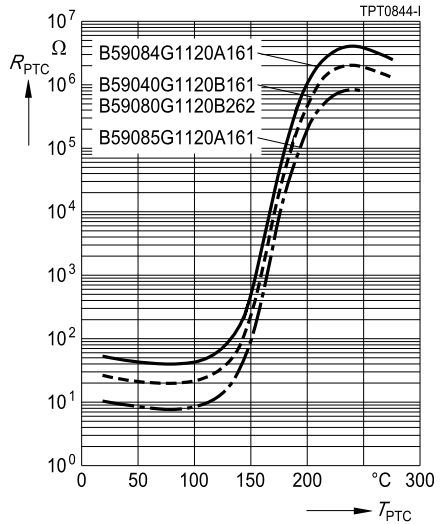
Type	$R_R$	$R_{min}$	$I_R$ @ $25^{\circ}C$	$I_R$ @ $70^{\circ}C$	$I_S$ @ $25^{\circ}C$	$I_{Smax}$ @ 230 VAC	$t_S$ @ $I_{Smax}$ , 230 VAC	Ordering code
	$\Omega$	$\Omega$	mA	mA	mA	A	s	
<b>Gamma I</b>								
G1085	10	6.5	180	130	360	1.0	< 5.0	B59085G1120A161
G1083	16	10	150	105	300	1.5	< 2.0	B59083G1120A161
G1080	25	15	130	85	270	2.8	< 0.3	B59080G1120B262
G1084	50	30	90	50	190	2.5	< 0.2	B59084G1120A161
<b>Gamma L</b>								
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  
PTC temperature  $T_{PTC}$   
(measured at low signal voltage)



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

