



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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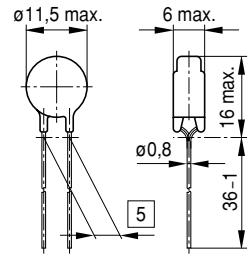


**Applications**

- Switch-mode power supplies

**Features**

- Close resistance tolerance, improved insulation voltage
- Useable in series connections up to 265  $V_{rms}$
- Coated thermistor disk
- Kinked leads of tinned copper wire
- Wide resistance range
- UL approval (E69802)



TNT0413-S

**Delivery mode**

Bulk (standard),  
cardboard tape, reeled or in Ammo pack

Dimensions in mm

Approx. weight 1,7 g

Climatic category (IEC 60068-1)		55/170/56	
Max. power at 25 °C	$P_{max}$	2,4	W
Resistance tolerance	$\Delta R_N/R_N$	$\pm 15\%$	
Rated temperature	$T_N$	25	°C
B value tolerance	$\Delta B/B$	$\pm 3\%$	
Dissipation factor (in air)	$\delta_{th}$	approx. 14	mW/K
Thermal cooling time constant (in air)	$\tau_c$	approx. 50	s
Heat capacity	$C_{th}$	approx. 700	mJ/K
Test voltage ( $t = 1$ s)	$V_T$	1000	VDC

$R_{25}$ $\Omega$	$I_{max}$ (0 ... 65 °C) A	No. of R/T char- acteristic	$B_{25/100}$ K	$C_T^{(1)}$ 230 V $\mu F$	$C_T^{(1)}$ 110 V $\mu F$	Parameters for $R(I)^{(1)}$		Ordering code
						$k$	$n$	
2,5	5,5	1201	2700	200	800	0,621	-1,27	B57236S0259L002
3,0	5,0	1202	2800	300	1200	0,80	-1,31	B57236S0309L002
5,0	4,5	1202	2800	300	1200	0,761	-1,30	B57236S0509L002
8,0	3,7	1203	2900	300	1200	1,11	-1,34	B57236S0809L002

1) For details on the capacitance  $C_T$  as well as on the parameters  $k$  and  $n$  refer to "Application Notes", pages 40–42.

**Reliability data**

Test	Standard	Test conditions	$\Delta R_{25}/R_{25}$ (typical)	Remarks
Storage in dry heat	IEC 60068-2-2	Storage at upper category temperature $T: 170\text{ °C}$ $t: 1000\text{ h}$	< 10 %	No visible damage
Storage in damp heat, steady state	IEC 60068-2-3	Temperature of air: 40 °C Relative humidity of air: 93 % Duration: 21 days	< 5 %	No visible damage
Rapid temperature cycling	IEC 60068-2-14	Lower test temperature: – 55 °C Upper test temperature: 170 °C Number of cycles: 10	< 10 %	No visible damage
Endurance		$I = I_{\max}$ $t: 1000\text{ h}$	< 10 %	No visible damage
Cyclic endurance		$I = I_{\max}$ , 1000 cycles On-time = 1 min Cooling time = 6 min	< 10 %	No visible damage
Transient load		Capacitance = $C_T$ Number of cycles: 1000	< 5 %	No visible damage

**Herausgegeben von EPCOS AG**

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This brochure replaces the previous edition.

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Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.