



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

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com






Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



THT Current Sense Transformers

For Arc Fault Detection Circuits



-  Works with the TI SolarMagic RD-195 DC Arc Fault Detection Reference Design Kit
-  For the TI SM73201-ARC-EV PCB
-  UL/C-UL recognized components
-  3000 Vrms gate to drive winding test
-  Useful operating frequency from 50 kHz to 500 kHz

Electrical Specifications @ 25°C — Operating Temperature -40°C to 130°C

Part Number	Turns Ratio	Primary Inductance (3-7) (mH MIN)	DCR Pri 1 (3-7) (Ω MAX)	DCR Pri 2 (4-8) (mΩ MAX)	DCR Sec (1-10) (mΩ MAX)	Hi-Pot (Pri-Sec) (Vrms)
PA3655NL	200:200:1	76	15.8	15.8	1.7	3000

Electrical Specifications @ 25°C — Operating Temperature -40°C to 130°C

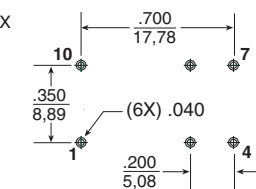
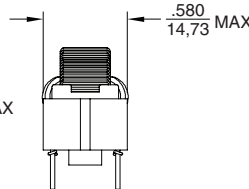
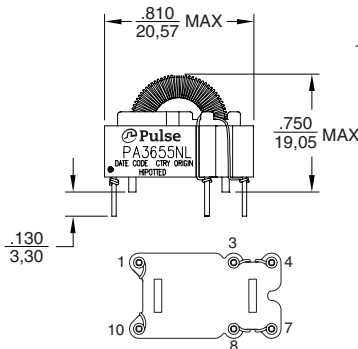
Part Number	Reference Data			Calculation Data
	RT (Ω)	Ipk (Amps)	Max Flux Density (Gauss)	Kb
PA3655NL	200	34	2000	17.12

- Notes:
- These current sense transformers have two one turn primaries that can be used in parallel. The listed current ratings are for parallel connection.
 - The reference values are for an application using the termination resistor (RT) and operating with unipolar waveform at 100kHz, 40% duty cycle. The estimated temperature rise is 55°C.
 - The peak flux density should remain below 2100 Gauss to ensure that the core does not saturate. Use the following formula to calculate the peak flux density: $B_{pk} = K_b * I_{pk} * R_t * \text{don} / (F_f * \text{Freq. in kHz})$ where: R_t is the terminating resistor in the application and F_f is 1 for unipolar waveform and 2 for bipolar waveform
 - The temperature rise of the component is calculated based on the total core loss and copper loss:
 - To calculate total copper loss (W): $P_{(cu)} = I_{pk}^2 * DCR_{Sec} * F_f * \text{don}$ where: F_f is 1 for unipolar waveform and 2 for bipolar waveform
 - To calculate total core loss (W): $P_{(core)} = 0.000073 * (\text{Freq. in kHz})^{1.67} * (B_{op} \text{ in kG})^{2.532}$ where: $B_{op} \text{ in kG} = K_b * I_{pk} * R_t * \text{don} / (2000 * \text{Freq. in kHz})$
 - To calculate temperature rise: $\text{Temperature Rise (C)} = 60.18 * (\text{Core Loss(W)} + \text{Copper Loss (W)})^{.833}$

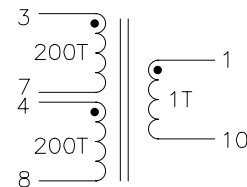
Mechanicals

Schematic

PA3655NL



SUGGESTED PCB HOLE PATTERN



Weight.....5 grams
Tray.....20/tray

Dimensions: $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified, all tolerances are $\pm \frac{.010}{0,25}$

For More Information

Pulse Worldwide Headquarters
12220 World Trade Drive
San Diego, CA 92128
U.S.A.

Pulse Europe
Zeppelinstrasse 15
71083 Herrenberg
Germany

Pulse China Headquarters
B402, Shenzhen Academy of
Aerospace Technology Bldg.
10th Kejinan Road
High-Tech Zone
Nanshan District
Shenzhen, PR China 518057
Tel: 86 755 33966678
Fax: 86 755 33966700

Pulse North China
Room 2704/2705
Super Ocean Finance Ctr.
2067 Yan An Road West
Shanghai 200336
China
Tel: 86 21 62787060
Fax: 86 2162786973

Pulse South Asia
135 Joo Seng Road
#03-02
PM Industrial Bldg.
Singapore 368363

Pulse North Asia
3F No. 198, Zhongyuan Road
Zhongli City
Taoyuan County (32068)
Taiwan
Tel: 886 3 4356768
Fax: 886 3 4356823

Tel: 858 674 8100
Fax: 858 674 8262

Tel: 49 7032 7806 0
Fax: 49 7032 7806 12

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