## **SMT Current Sense Transformer**

PMS9494,XXXNLT EE8 SMD Platform













@ Current Rating: up to 30A

@ Footprint: 13mm x 10.5mm x 7.2mm Max

@ Frequency Range: 20kHz to 1MHz

@ Insulation: Functional

@ Hipot Isolation: 1200Vrms, 6 sec

Woltage Rating: Up to 375Vpk

Electrical Specifications @ 25°C — Operating Temperature -40°C to +125°C											
Part Number	Turns Ratio ±1.50	Current <sup>2</sup> Rating (A)	Secondary Inductance (mH Min)	DO	Hipot						
				Primary (8-7)(m $\Omega$ Max)	Secondary (1-3)( $\Omega$ Max)	(Vrms)					
PMS9494.050NLT	50	30	0.55	0.35	0.66	1200					
PMS9494.100NLT	100	30	2.2	0.35	3.3	1200					
PMS9494.150NLT	150	30	5.0	0.35	8.2	1200					
PMS9494.200NLT	200	30	9.0	0.35	14	1200					

#### NOTES:

- The temperature of component (ambient temperature plus temper-ature rise) must be within the specified operating temperature range.
- The maximum current rating is based upon temperature rise of the component and represents the DC current which will cause a typical temperature rise of 40°C.
- To calculate value of terminating resistor (Rt) use the following formula: Rt (W) = VREF \* N / (Ipeak primary)

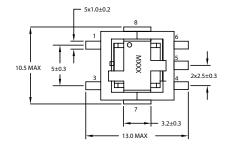
The peak flux density of the device must remain below 2200 Gauss. To calculate the peak flux density for uni-polar current use following formula:

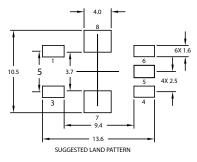
Bpk = 18.8\* VREF \* (Duty\_Cycle\_Max) \*  $10^5$  / (N \* Freq\_kHz)

\* for bi-polar current applications divide Bpk (as calculated above) by 2.

Rated voltage is based on a positive partial discharge test (discharge < 10pC) during the design phase (not production tested) for a 375V repetitive peak voltage (Urp). The test condition was with an extinction voltage, U2 = 1.1\* Urp, after an inception voltage, U1 = 1.2\*U2.

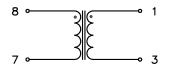
#### **Mechanical Schematic**



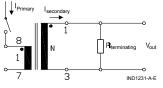








### **SCHEMATIC**



Application circuit and pinning

Weight ..... 1.2 grams Tape & Reel . . . . . . . . . . 450/reel

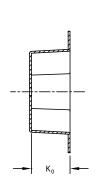
Dimensions: mm

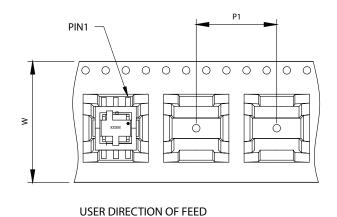
Unless otherwise specified, all tolerances are ± 0.25

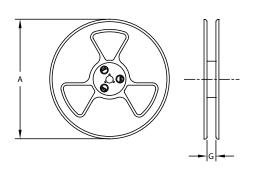
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## **TAPE & REEL INFO**







SURFACE MOUNTING TYPE, REEL/TAPE LIST										
DADT NUMDED	REEL SIZE (mm)		TAPE SIZE (mm)			QTY				
PART NUMBER	А	G	P <sub>1</sub>	W	<b>K</b> 0	PCS/REEL				
PMS9494.XXXNLT	330	24.4	16	24	7.9	450				

### For More Information:

Americas - prodinfo\_power\_americas@ yageo.com | Europe - prodinfo\_power\_emea@yageo.com | Asia - prodinfo\_power\_asia@yageo.com

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