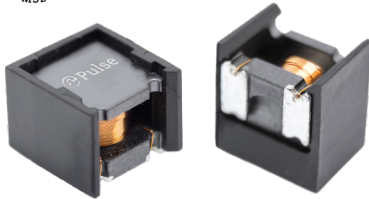


VIPER - SMT ARC FAULT SENSOR

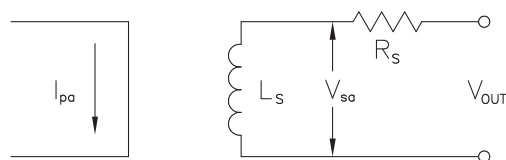
PA3815NL Series



- ⌚ Arc Fault Sensor for UL 1699B
- ⌚ Arc Fault Sensor for HVDC Buildings
- ⌚ Works with TI RD-195 Reference Design
- ⌚ 100% DC Current Immune
- ⌚ No AC or DC Current Saturation Limit
- ⌚ Full Bandwidth 750 kHz and Higher
- ⌚ Fully Isolated to recommended PWB Trace
- ⌚ Photovoltaic Circuit Protection
- ⌚ Patent Pending

Electrical Specifications @ 25°C - Temp Range - 40°C to 130°C				
Part Number	KR ³ (μΩ/Hz typ)	Ls ⁴ (mH typ)	Rs ⁵ (Ohms typ) ±10%	SRF ⁶ (Hz typ)
PA3815NL	3.33	2.6	6.9	750,000

Low Frequency Equivalent Circuit



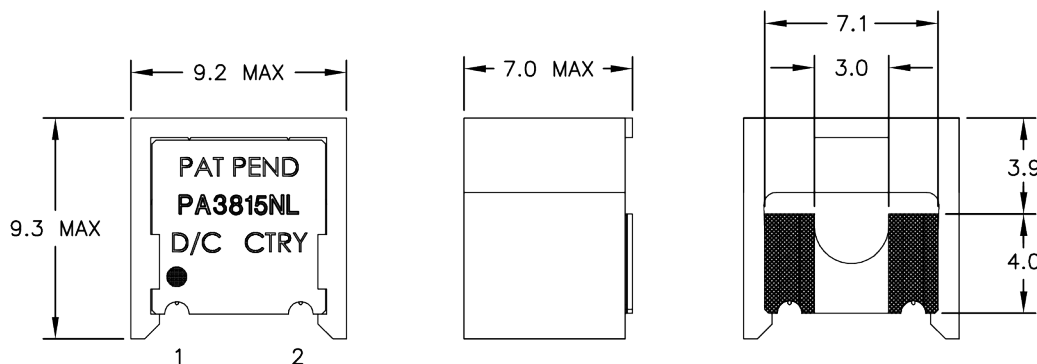
$$V_{sa} = K_r F_r I_{pa} \quad F_r \ll SRF$$

NOTES:

1. Output Voltage is proportional to the derivative (di/dt) of the input current based on the Rogowski Coil principle.
2. All current and voltages assumed to be sinusoidal waveforms at Fr, the constant rated frequency in Hz, measured as RMS values.
3. When the component is positioned at the edge of the customer trace, the minimum creepage distance is 3.0mm.
4. Kr = Rated transformation constant
5. Ls = Secondary winding inductance
6. Rs = Secondary winding resistance
7. SRF = Self Resonate Frequency
8. Ipa = Actual primary current
9. Vsa = Actual secondary output voltage

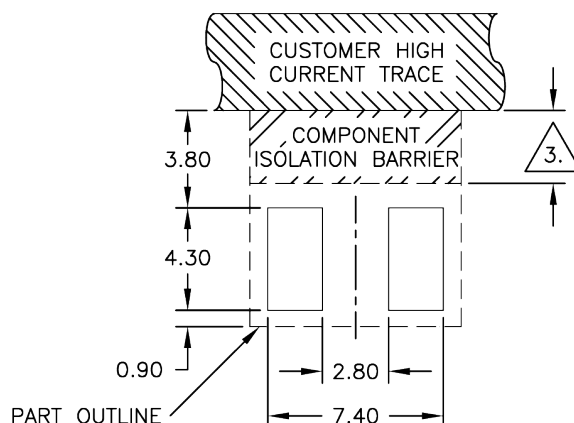
Mechanical

PA3815NL



SIDEWINDER® - SMT ARC FAULT SENSOR

PA3815NL Series



SUGGESTED PAD LAYOUT
TOLERANCE = ± 0.05

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