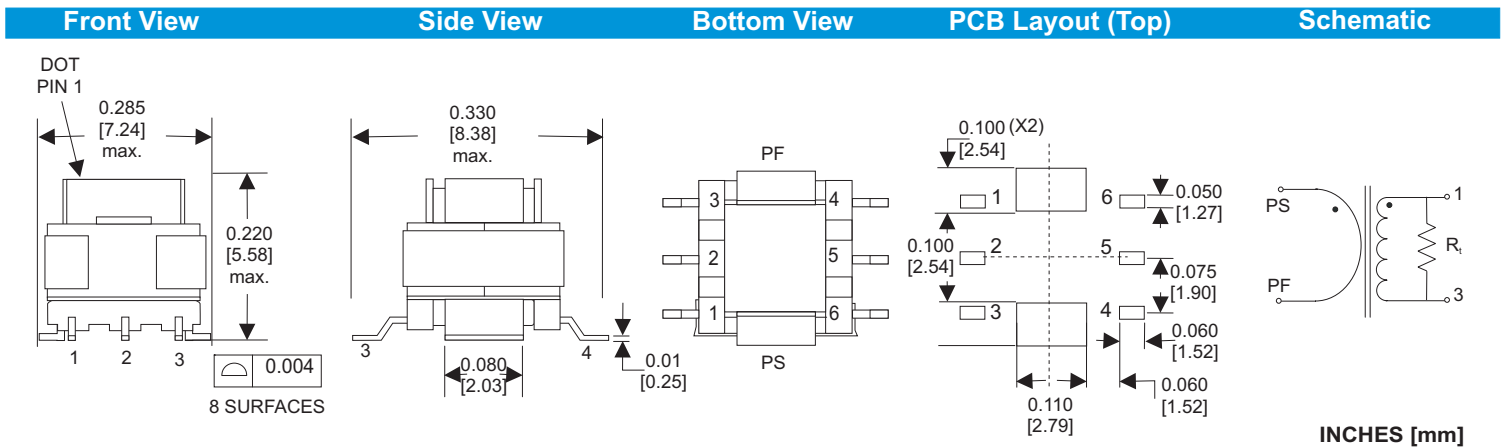




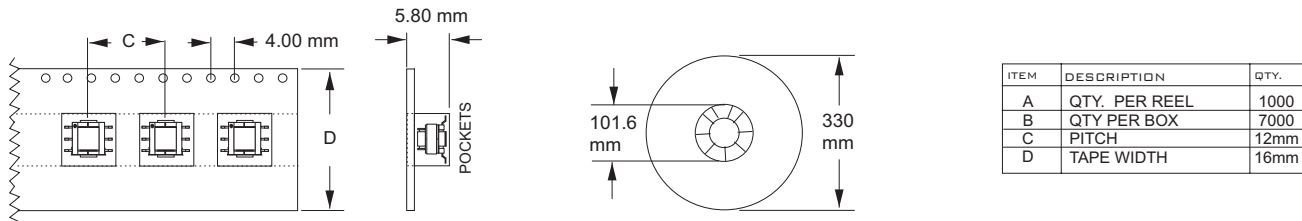
MAX. DIM :
L = 8.38 mm
W= 7.24 mm
H = 5.58 mm

- For sensing and monitoring in analog systems and DC/DC converters.
- Surface mount design.
- Primary rating current up to 10 Amps.
- Operating frequency range from 10 kHz and extended to 450 KHz for some applications.
- Built to meet temperature class F (155°C)

MECHANICAL SPECIFICATIONS



Packaging Information



See tape and reel information 83-012

ELECTRICAL SPECIFICATIONS

FALCO PART NUMBER	RoHS PART NUMBER	Turns Ratio N _p : N _s	L (μH) min	DCR (Ω) max. R _s	Hipot (V _{rms}) 1 sec	R _t (Ω)	Dot Color Code	I _{pk} (Amps.)
E05015		1 :20	80	0.54	500	2.0	Brown	10
E05016	E05L16	1: 50	500	1.50	500	5.0	Red	10
E05017		1: 70	980	4.72	500	7.0	Blue	10
E05018	E05L18	1:100	2000	5.50	500	10.0	White	10

1. Inductance tested at 10 kHz & 0.25 V.
2. L and DCR tested at 25°C.
3. Hipot tested between primary and secondary to core.
4. R_t is the terminating resistor on the secondary winding (not included) for a 0.1 V/A sensing ratio .
5. Operating Temp. Range -40°C to +125°C.
6. In order to prevent saturation keep B_{max} below 2000 Gauss. K=1 for Unipolar waveform : K=2 for Bipolar waveform in formulae.
7. Temperature rise (°C): 290* (P_{cu} + P_{fe}) Watts.
8. Use below math relationship to limit absolute temperature to maximum 125°C (B in Gauss, f in (Hz)) :

$$P_{cu} = I_{srms}^2 R_s \left(\frac{I_{ppk}}{N_s} \right)^2 \left(\frac{D_{max}}{3} \right) R_s$$

$$P_{fe} = 2.9 * 10^{-17} B^{2.1} f^{1.1}$$

$$B_{max} = 37.5 * 10^8 \frac{I_{ppk} R_t}{K N_s f} \left(\frac{I_{ppk} R_t}{N_s} V_d \right) * D_{max}$$

$$I_{srms} = \frac{I_{ppk}}{N_s} \sqrt{\frac{D_{max}}{3}}$$



RoHS COMPLIANT PRODUCT