



Part Number: **T27-8/90**

Revision 20190524 - Generated 2019-May-30



OD	(nom. - bare core) (max. - after coating)	7.11 mm 7.49 mm	0.280 in 0.295 in
ID	(nom. - bare core) (min. - after coating)	3.84 mm 3.45 mm	0.151 in 0.136 in
Ht	(nom. - bare core) (max. - after coating)	3.25 mm 3.76 mm	0.128 in 0.148 in
Mass	(approximate)	0.52 grams	
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.0470 cm ²	
	L _e - Eff. Mag. Path Length	1.71 cm	
	V _e - Eff. Core Volume	0.0800 cm ³	
	WA - Min. Eff. Window Area	0.0937 cm ²	
	sa - Surface Area	2.21 cm ²	
	mlt - mean length per turn	1.33 cm	
Inductance	μ _i (reference)	35	
	A _L value (nominal)	11.5 nH/N ²	
	Test Winding	N=50, #34 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.010 V	
A _L tolerance	±10%		
Core Loss	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$		
	where B _{pk} expressed in gauss, f expressed in hertz, and: a=1.90E+09, b=2.00E+08, c=9.00E+05, d=5.00E-15		
	B _{pk}	140 G	
	frequency	100 kHz	
	Core Loss (nominal)	32 mW/cm ³	
Core Loss (maximum)	36 mW/cm ³		
DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and: a=1.00E-02, b=3.49E-06, c=1.43, d=0.00		
	H _{DC}	200 Oe	
	Percent Initial Perm(nom.)	60.1%	
Percent Initial Perm(min.)	53.7%		
Coating/Pkg	Coating Type:	Yellow/Red Epoxy Paint	
	Voltage Breakdown (min.)	500 Vrms, 60Hz	
	Limit	3 mA, 5 s	
	Package Quantity	30,000 Pcs/Box	

Winding Table	Wire Size	AWG	22	24	26	28	30	32	34	36	38	40	42
		mm	0.630	0.500	0.400	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063
	Single Layer	Turns	11	14	18	23	30	37	47	59	75	94	117
		Rdc(Ω)	7.7 m	15.7 m	32.0 m	65.0 m	134.9 m	264.6 m	534.6 m	1.1	2.2	4.3	8.5
Full Winding	Turns	10	16	25	39	60	93	143	222	344	532	823	
	Rdc(Ω)	7.0 m	17.9 m	44.4 m	110.3 m	269.8 m	665.1 m	1.6	4.0	9.9	24.3	59.9	

