

sumida

D10001
SD10001

DSL Isolation Transformer

FEATURES

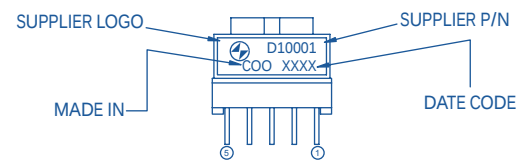
- For top-performance in ADSL modem line interfaces.
- Drop in replacement for EP13.
- Total Harmonic Distortion rated -89.7dB, typ. between 30kHz-200kHz.
- Insertion Loss rated 0.31dB typ. @ 300kHz.
- Return Loss rated 21dB typ. @ 300kHz.
- Longitudinal Balance 70.5dB typ. between 30kHz-1.1MHz.
- Complies with supplementary insulation for a 250 Vrms primary line circuit according to IEC60950.
- Lower profile (10.9 mm).
- Applicable for IC models:
ALCATEL : MKT-20130/140/150/161/450
CENTILLIUM: CTL21DT01/L10AT01

PRODUCT COMPLIANCE

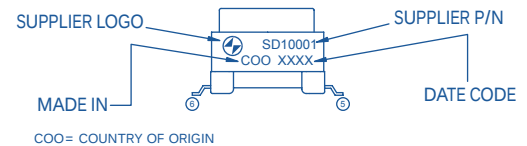
- UL/C- UL recognized file number:
- BABT certificate of recognition:
- Patent Pending

NOMENCLATURE (FIG. 1)

THT

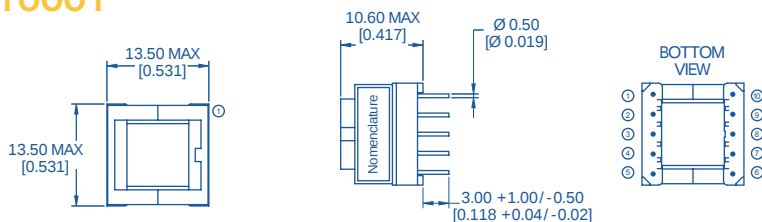


SMT

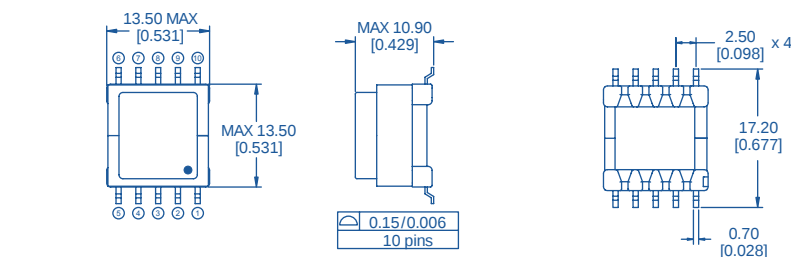


MECHANICAL DIMENSIONS (FIG. 2)

D10001



SD10001



DIMENSIONS: $\frac{\text{mm}}{\text{inches}}$

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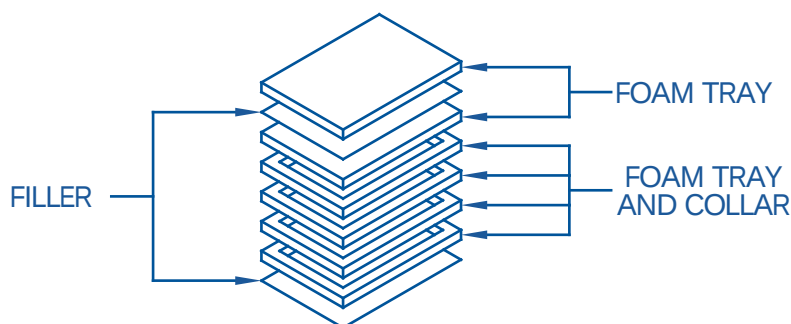
ELECTRICAL PERFORMANCE SPECIFICATIONS

Performance	Conditions	Min	Typ	Max	Units
Impedance	Reflected on Primary with load on Secondary		100 100		Ω
Total Harmonic Distortion	5.3 Vrms, 30kHz - 200kHz		-89.7	-80.0	dB
Insertion Loss	@ 300kHz		0.31	0.50	dB
Return Loss	@ 300kHz	16.5	21		dB
Dielectric Breakdown Isolation Production methods applied:	Safety Standard tested 1 min. HiPOT Voltage Duration Trip Leakage Current	1500 1875 2		200	Vrms Vrms Sec μ A
Frequency Response	30kHz - 1.1MHz (Ref. 300kHz)		± 1.2	± 1.8	dB
Longitudinal Balance	30kHz - 1.1MHz	55	70.5		dB
DC Resistance @ 20°C	Primary winding (R_{pri}) Secondary winding (R_{sec})		3.04 2.97	3.4 3.4	Ω
DC current in Primary			0		mADC
Turns Ratio	Primary to secondary; $\pm 1\%$		1:1		Turns
Inductance (L_p)	10kHz, 0.1 VAC	460.6	490	519.4	μ H
Leakage inductance (ΔL_{leak})	100kHz, 0.1 VAC		4.72	9	μ H
Core Loss (R_p)	100kHz, 0.1 VAC		23.7		k Ω
Interwinding Capacitance (C_{ww})	10kHz, 0.1 VAC		20.32	30	pF
Operating temperature		-40		85	°C
Storage temperature		-40		100	°C

Electrical Performance Specifications (TA = 25°C unless otherwise specified)

- Spice model Schematic is available on the Sumida America Web site in application note AN1002.
- GRAPHS AVAILABLE UPON REQUEST

PACKAGING



PACKAGING

Material	Contents	#Transformers
Tray	Transformer	50

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