

D10021
SD10021

DSL Isolation Transformer

FEATURES

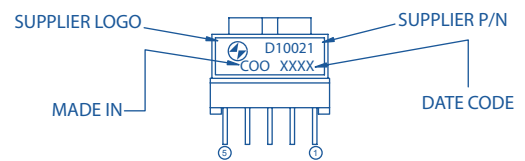
- For top-performance in ADSL modem line interfaces.
- Drop in replacement for EP13.
- Total Harmonic Distortion rated -90dB, typ. between 30kHz-200kHz.
- Insertion Loss rated 0.3dB typ. @ 300kHz.
- Return Loss rated 20.4dB typ. @ 300kHz.
- Longitudinal Balance 69.8dB typ. between 30kHz-1.1 MHz.
- Complies with supplementary insulation for a 250 Vrms primary line circuit according to IEC60950.
- Lower profile (10.9 mm).
- Applicable for IC models:
AMD: AMDSK134
GLOBESPAN: EL1501C
GS-7000

PRODUCT COMPLIANCE

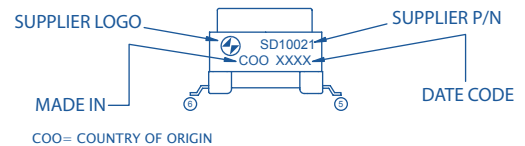
- UL/C- UL recognized file number:
- BABT certificate of recognition:
- Patent Pending

NOMENCLATURE (FIG. 1)

THT

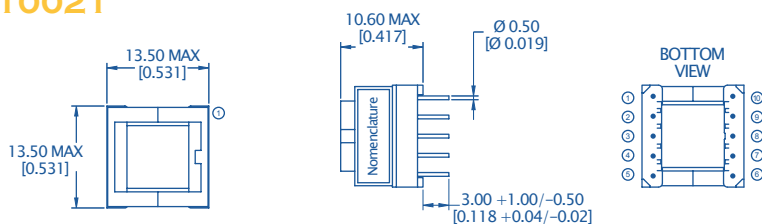


SMT

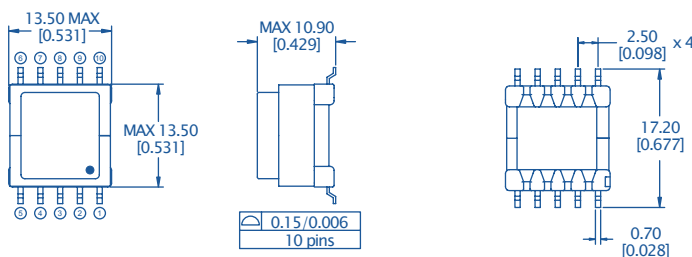


MECHANICAL DIMENSIONS (FIG. 2)

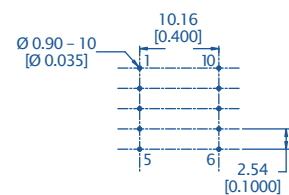
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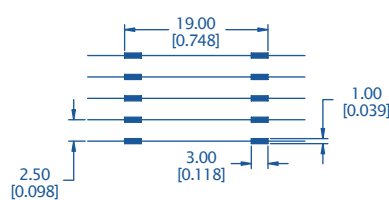
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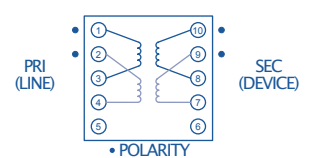
TERMINAL LAND LAYOUT



RECOMMENDED LAND LAYOUT:



TERMINAL (BOTTOM VIEW)



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

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www.sumida.com

• North America

Tel. 1 847 545 6700
Fax. 1 847 545 6720

• Hong Kong

Tel. 852 2880 6688
Fax. 852 2565 9600

• Europe

Tel. 32 89 328850
Fax. 32 11 300890

• Singapore

Tel. 65 296 3388
Fax. 65 296 3390

• Taiwan

Tel. 886 2 2523 6368
Fax. 886 2 2523 6369

• Japan

Tel. 813 3980 2212
Fax. 813 3980 2213

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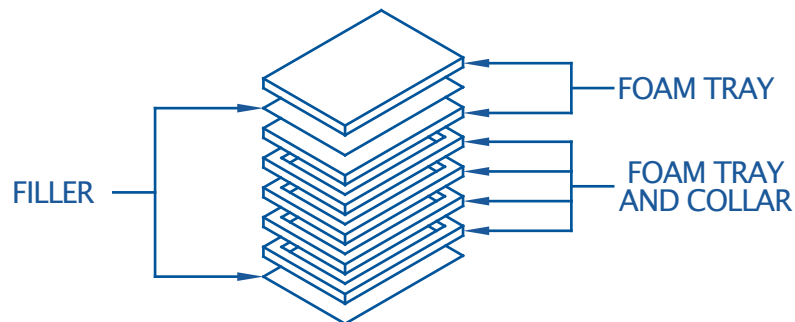
ELECTRICAL PERFORMANCE SPECIFICATIONS

Performance	Conditions	Min	Typ	Max	Units
Impedance	Reflected on Primary with load on Secondary		100 100		Ω
Total Harmonic Distortion	5.3 Vrms, 30kHz–100kHz		–90	–80	dB
Insertion Loss	@ 300 kHz		0.3	0.5	dB
Return Loss	@ 300 kHz	16.5	20.4		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	30 kHz – 1.1MHz (Ref. 300kHz)		± 1.6	± 2.0	dB
Longitudinal Balance	30 kHz – 1.1MHz	55	69.8		dB
DC Resistance @ 20°C	Primary winding (R_{pri}) Secondary winding (R_{sec})		2.74 2.71	3.1 3.1	Ω
DC current in Primary			0		mADC
Turns Ratio	Primary to secondary; $\pm 1\%$		1:1		Turns
Inductance (L_p)	10 kHz, 0.1 VAC	383	407.5	432	μ H
Leakage inductance (ΔL_{leak})	100 kHz, 0.1 VAC		3.8	9.0	μ H
Core Loss (R_p)	100 kHz, 0.1 VAC		18.6		k Ω
Interwinding Capacitance (C_{ww})	10 kHz, 0.1 VAC		18.96	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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