



Analog Telephony/Modem Couplers

FEATURES

- Suitable for modem speeds up to V.34 (33.6 kbps).
- Total Harmonic Distortion rated -82 dB typ. @ 600 Hz, -10 dBm.
- Insertion Loss rated 2.75 dB typ. @ 2000 Hz.
- Complies with IEC60950 Supplementary safety norms.
- Reflects 600 Ohms on Primary with 294 Ohms Secondary Load for 600-Ohm telephone lines.
- Uses minimal external components for impedance matching for pan-European CTR-21 telephone lines.
- Very small PCB footprint (20.0mm x 16.3 mm).
- Thin (PCMCIA) Profile (4.32 mm).
- SMT Industry-standard pin configurations.

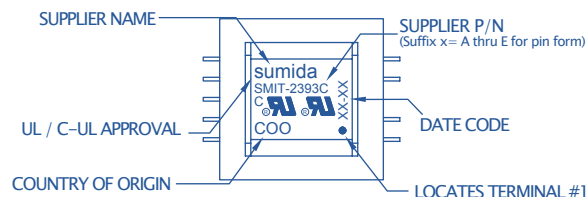
DESCRIPTION

The Sumida SMIT -2393 is a "Dry" SMT Modem Isolation Transformer suitable for up to V.34 (33.6 kbps) consumer and internet analog modem applications compliant with Worldwide safety norms.

PRODUCT COMPLIANCE

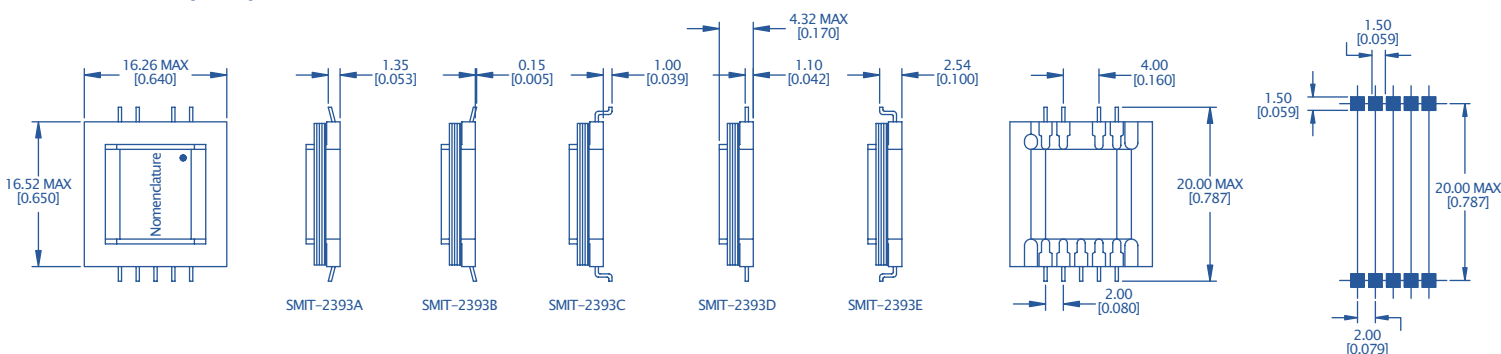
- UL / C-UL recognized file number: E171120
- BSI certificate number(s): 8122
- BABT certificate of recognition: 1905

NOMENCLATURE (FIG. 1)

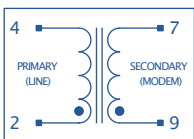


MECHANICAL DIMENSIONS (FIG. 2)

DIMENSIONS: MILLIMETERS [INCHES]



TERMINAL CONNECTION (BOTTOM VIEW)



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• 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

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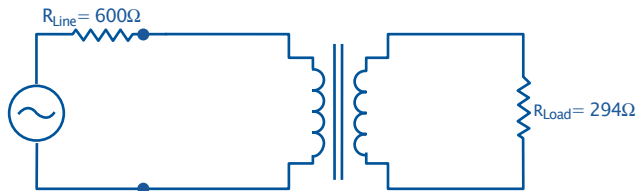
Tel. 813 3980 2212
Fax. 813 3980 2213

ELECTRICAL PERFORMANCE SPECIFICATIONS

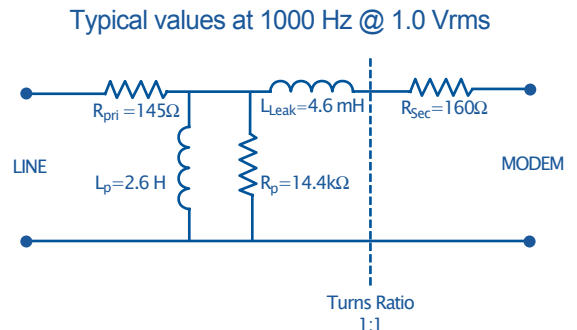
Parameters	Conditions	Min	Typ	Max	Units
Impedance	Reflected on Primary with load on Secondary		600 294		Ohms
Total Harmonic Distortion	@ 600 Hz, -10 dBm		-82	-80	dB
Insertion Loss	Per IEEE method; @2000 Hz		2.75	6.0	dB
Return Loss	300 Hz-3500 Hz Per 600 Ohm Match (Fig. 3) Per CTR1 Pan-Euro Match (Fig.5)	20 22			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 μA
Frequency Response	200 Hz - 4000 Hz		±0.25		dB
Longitudinal Balance	Per FCC part 68.310 60 Hz -1000 Hz □ 1000 Hz - 4000 Hz	60 40			dB
DC Resistance @ 20°C, ±10%	Primary winding (R_{pri}) Secondary winding (R_{sec})		145 160		Ohms
DC current in Primary			0		mADC
Turns Ratio	Primary to Secondary; ±2%		1:1		Turns
Operating temperature		-40		105	°C
Storage temperature		-40		125	°C
Soldering temperature	10 Sec. Max			260	°C

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

600 OHM MATCH (FIG.3)



SCHEMATIC EQUIVALENT (FIG.4)

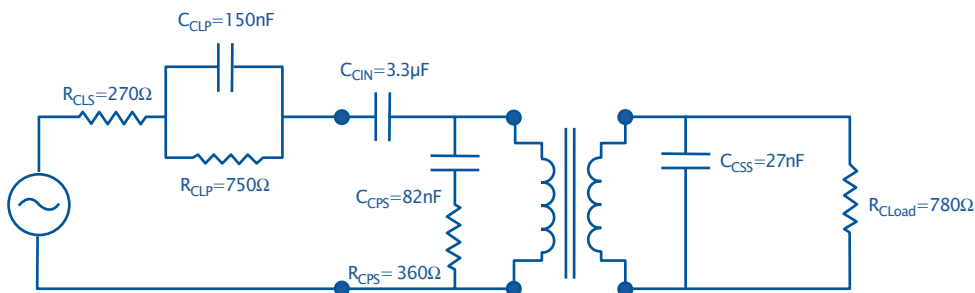


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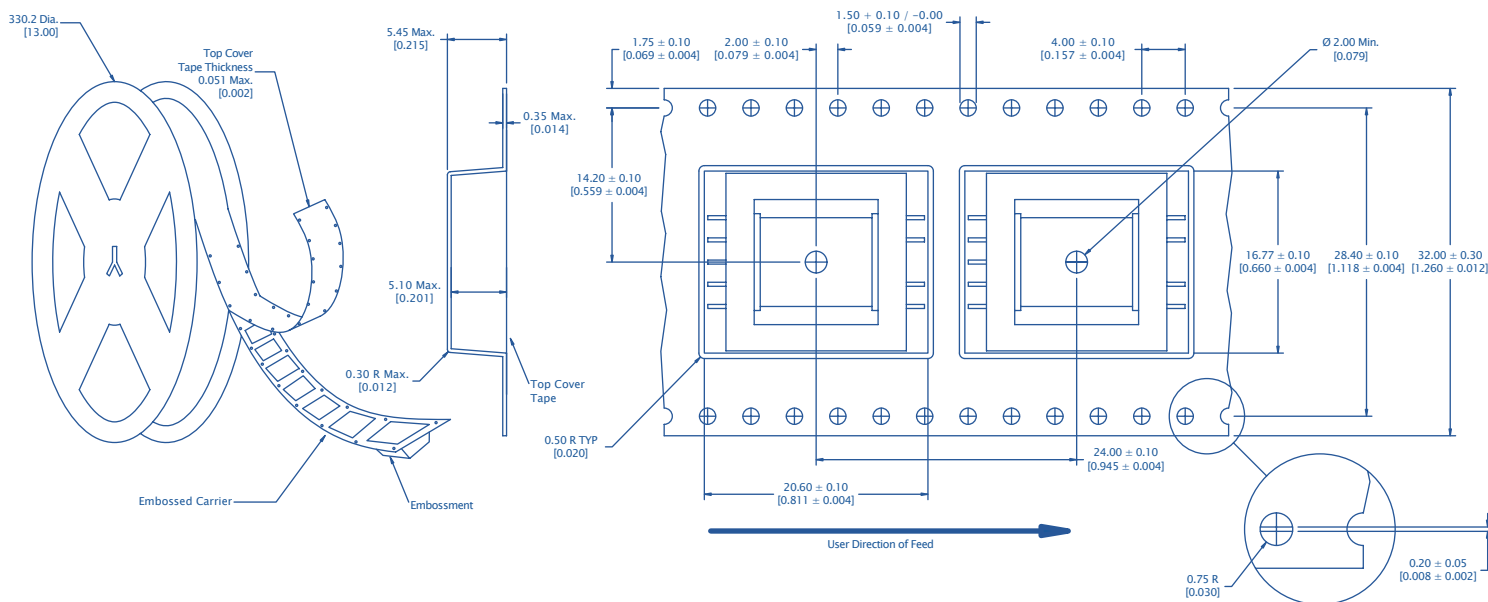


PAN-EUROPEAN CTR21 MATCH (FIG.5)

(Application circuits available on request for specific national match requirements.)

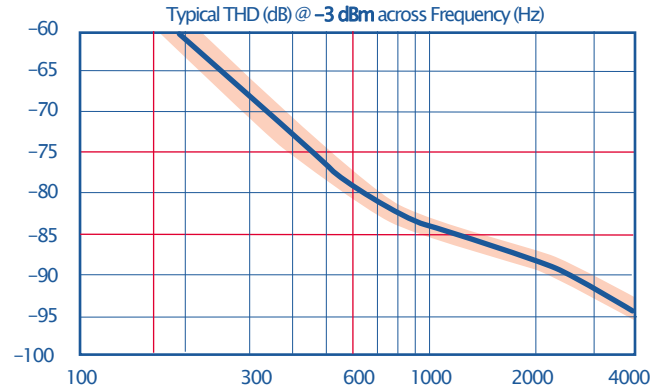
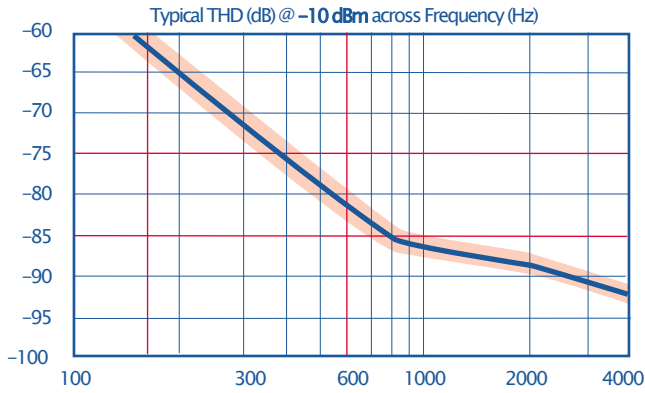


TAPE AND REEL PACKAGING (FIG.6)

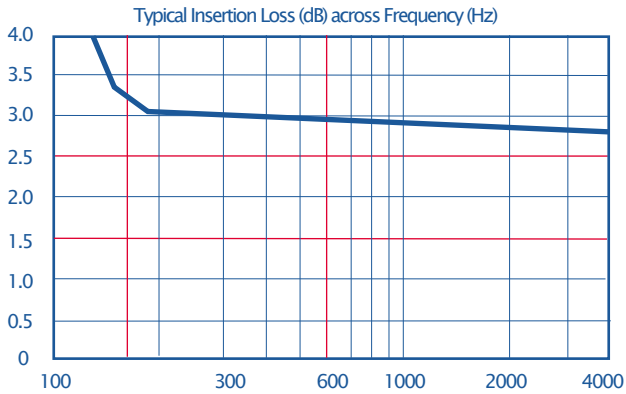


PERFORMANCE DATA

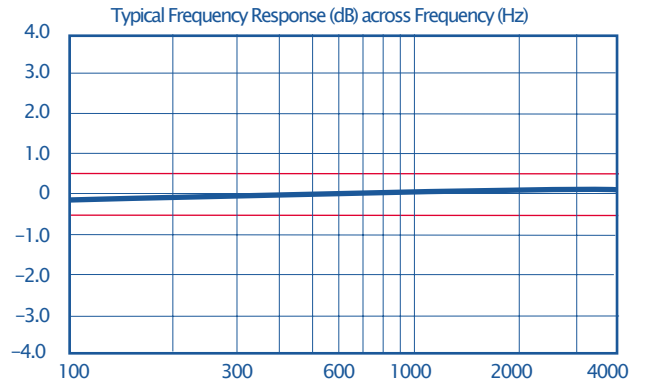
TOTAL HARMONIC DISTORTION



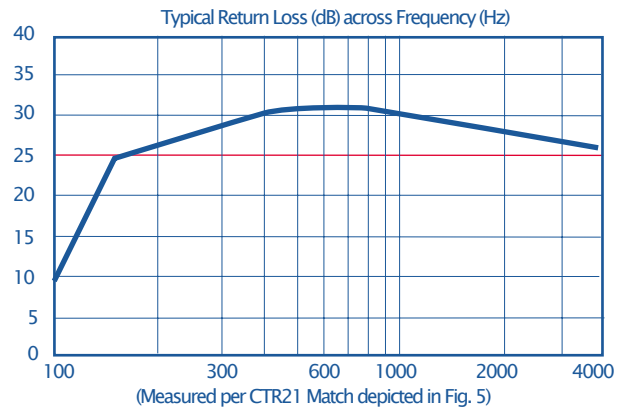
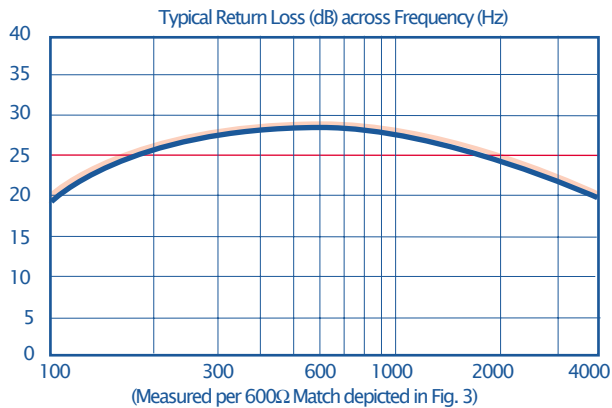
INSERTION LOSS



FREQUENCY RESPONSE



RETURN LOSS



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