



sumida ESMIT-3300

Analog Telephony/Modem Couplers

FEATURES

- Suitable for modem speeds up to V.34 (33.6 kbps); may be adapted for modem speeds up to V.92 (56 kbps).
- Total Harmonic Distortion rated -89 dB typ. @ 600 Hz, -10 dBm; and -63 dB typ. @ 150 Hz, -3 dBm.
- Insertion Loss rated 3.25 dB typ. @ 2000 Hz.
- Complies with IEC60950 Reinforced safety norms.
- Matches 600 Ohm and complex impedance telephone lines.
- Uses minimal external components for impedance matching.
- Ultra-small PCB footprint (14.65mm x 9.75mm)
- Very-Low profile (7.10 mm)
- SMT Industry-standard pin configuration

PRODUCT COMPLIANCE

- UL/C- UL recognized file number: E171120
- BABT certificate of recognition: 1905/2080/2081
- TÜV certificate of recognition: B0112 45749 001

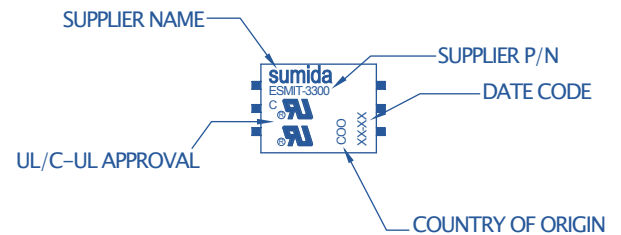


DESCRIPTION

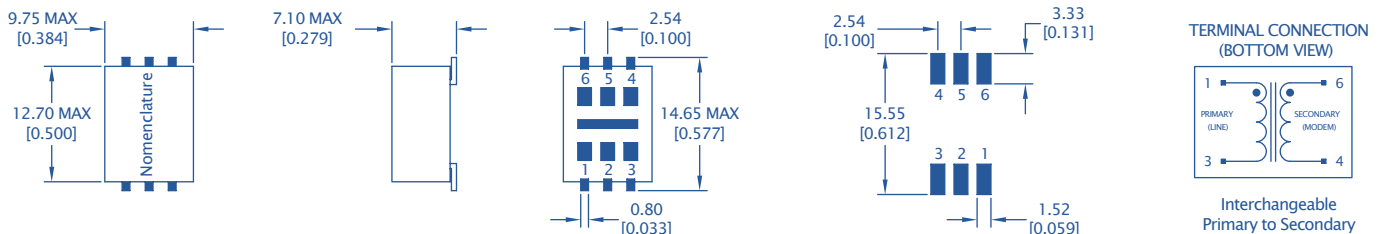
The Sumida ESMIT-3300 is a "Dry" encapsulated Modem Isolation Transformer suitable for up to V.92 (56 kbps) analog modem and voice applications requiring SMT and small PCB footprint. ESMIT-3300 complies with international safety norms, EN60950

Typical applications for ESMIT-3300 include computer telephony routers, remote access servers, and boards with gangs of telephone interface circuits requiring ESMIT-3300's small footprint, but not thin profile.

NOMENCLATURE (FIG. 1)



MECHANICAL DIMENSIONS (FIG. 2)



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Tel. 1 847 545 6700

Fax. 1 847 545 6720

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Tel. 852 2880 6688

Fax. 852 2565 9600

• Europe

Tel. 32 89 328850

Fax. 32 11 300890

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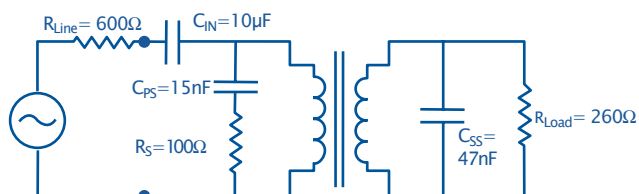
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ELECTRICAL PERFORMANCE SPECIFICATIONS

Parameters	Conditions	Min	Typ	Max	Units
Impedance	Reflected on Primary with load on Secondary		600 260		Ohms
Total Harmonic Distortion	@ 600 Hz, -10 dBm @150 Hz, -3 dBm		-89 -63	-85	dB
Insertion Loss	Per IEEE method; @2000 Hz, 20°C		3.25	3.50	dB
Return Loss	200 Hz-4000 Hz Per 600 Ohm Match (Fig. 3) Per CTR21 Pan-Euro Match (Fig.5)	20 25			dB
Dielectric Breakdown Isolation Production methods applied:	Safety Standard tested 1 min. HiPot Voltage Duration Trip Leakage Current	3000 3750 2		200	Vrms Vrms Sec μA
Frequency Response	200 Hz – 4000 Hz		±0.20		dB
Longitudinal Balance	Per FCC part 68.310 60 Hz – 4000 Hz	80			dB
DC Resistance @ 20°C, ±10%	Primary winding (R_{pri}) Secondary winding (R_{sec})		180 180		Ohms
DC current in Primary			0		mADC
Turns Ratio	Primary to Secondary; ±2%		1:1		Turns
Operating temperature		0		70	°C
Storage temperature		-40		125	°C
Soldering temperature	10 Sec. Max: suitable for IR reflow (Fig.7)			240	°C

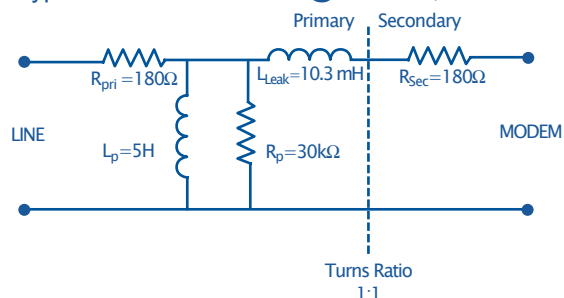
Electrical Performance Specifications (TA = 25°C unless otherwise specified)

600 OHM MATCH (FIG.3)



SCHEMATIC EQUIVALENT (FIG.4)

Typical transformer model @1000 Hz, 1.0 Vrms

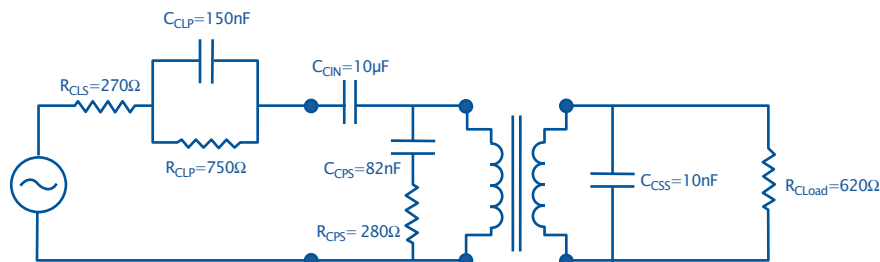


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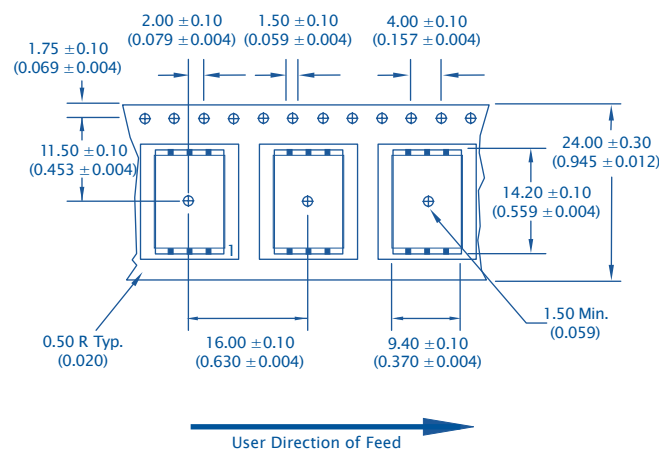
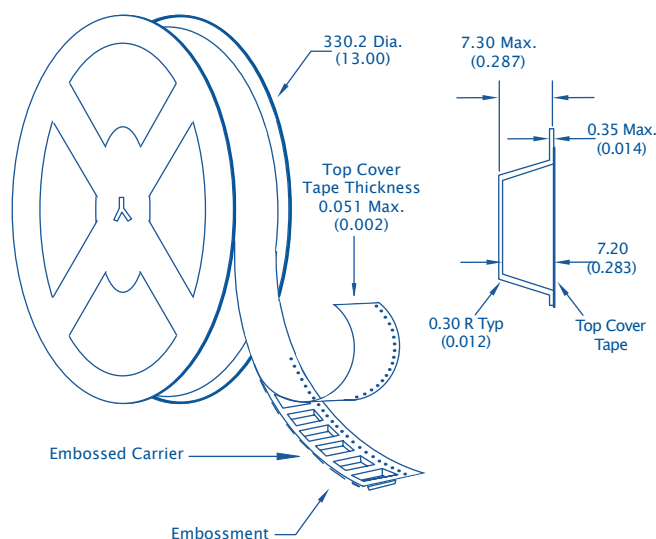
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PAN-EUROPEAN CTR21 MATCH (FIG.5)

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



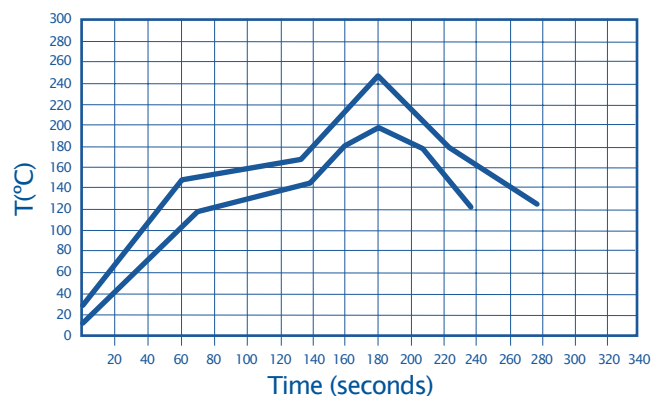
TAPE AND REEL PACKAGING (FIG.6)



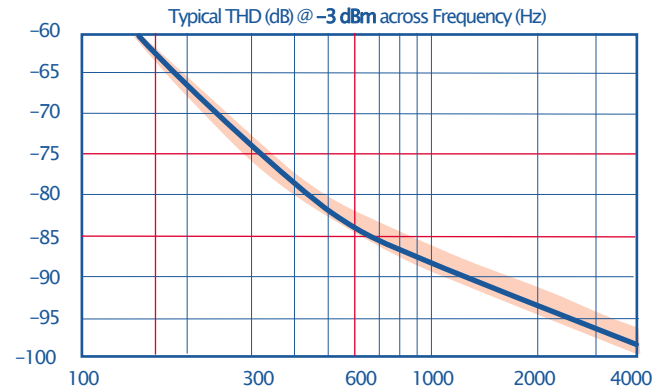
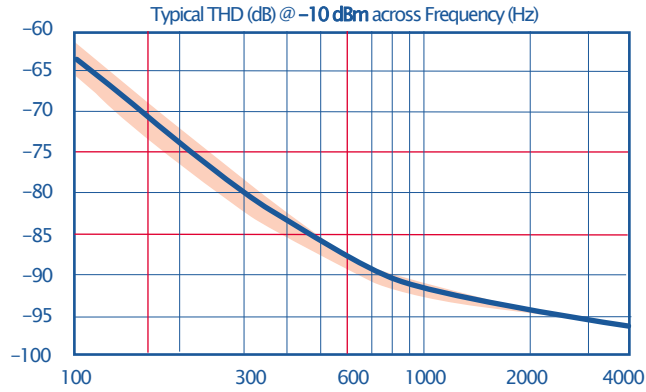
PACKAGING

Material	Contents	#Transformers
Tape	1 Reel	500

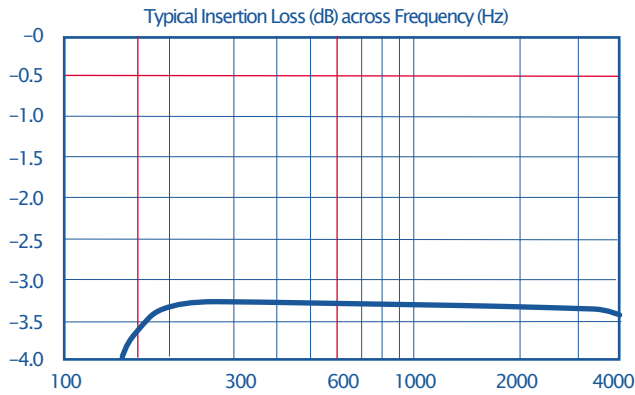
TYPICAL REFLOW PROFILE (FIG.7)



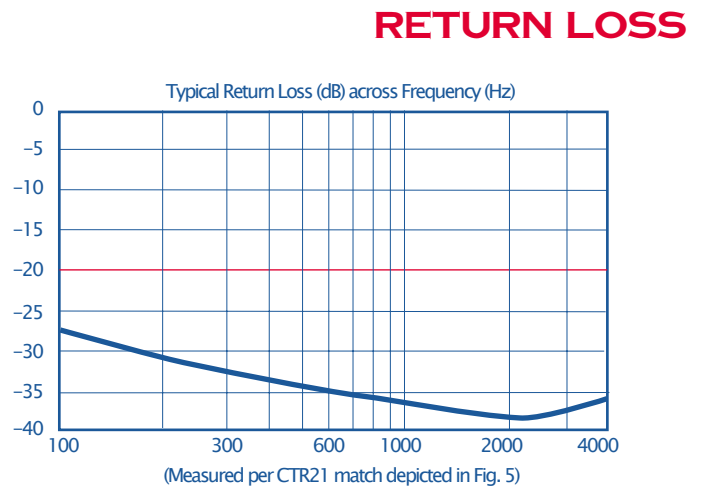
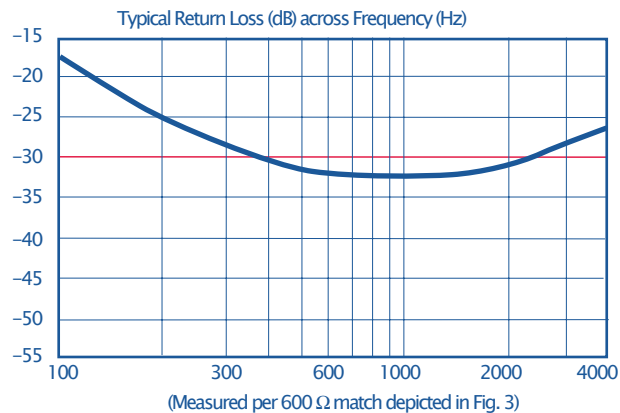
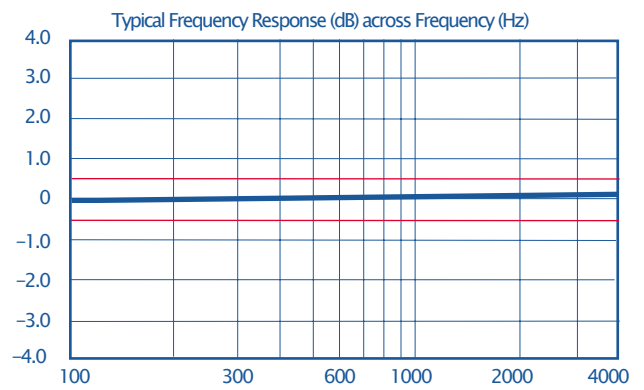
TOTAL HARMONIC DISTORTION



INSERTION LOSS



FREQUENCY RESPONSE



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