



sumida

EMIT-200L

Analog Telephony/Modem Couplers

FEATURES

- Suitable for modem speeds up to V.32 (9.6 kbps) and may be adaptable to V.32bis (14.4 kbps).
- Total Harmonic Distortion rated -74 dB typ. @ 600 Hz, -10 dBm.
- Insertion Loss rated 1.50 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.
- Very small PCB footprint (18.3 mm x 18.3 mm).
- Low-Profile (12.6 mm).
- Industry-standard pin configuration

PRODUCT COMPLIANCE

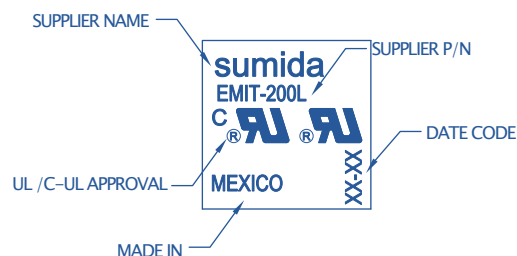
- UL I C-UL recognized file number: E171120
- BSI certificate number(s): 8047, 8048
- BABT certificate of recognition: 1905

DESCRIPTION

The Sumida EMIT-200L is a "Dry" Encapsulated Modem Isolation Transformer suitable for up to V.32 (9.6 kbps) fax, DBS set-top, security, utility metering, and other analog modem and voice routing applications compliant with International safety norms. May be adapted to V.32bis (14.4 kbps) modem speeds.

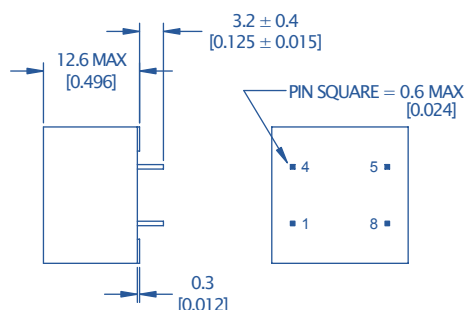
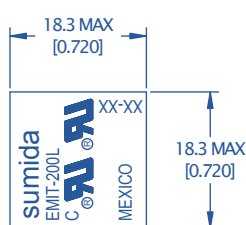
EMIT-200L improves EMIT-200 to a Low-Profile height, while offering identical electrical characteristics and the same economy for voice and low-speed modem circuits.

NOMENCLATURE (FIG. 1)

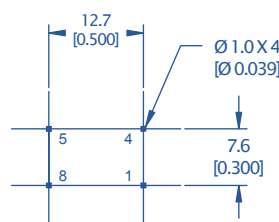


MECHANICAL DIMENSIONS (FIG. 2)

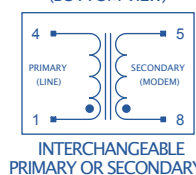
DIMENSIONS: MILLIMETERS [INCHES]



TERMINAL LAND LAYOUT



TERMINAL CONNECTION (BOTTOM VIEW)



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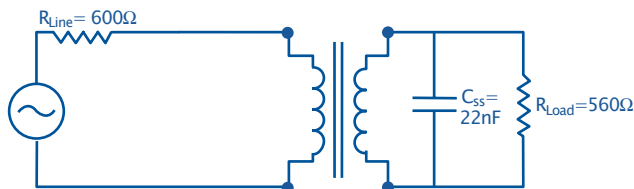
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ELECTRICAL PERFORMANCE SPECIFICATIONS

Parameters	Conditions	Min	Typ	Max	Units
Impedance	Reflected on Primary with load on Secondary		600 560		Ohms
Total Harmonic Distortion	@ 600 Hz, -10 dBm		-74	-65	dB
Insertion Loss	Per IEEE method; @2000 Hz		1.50	2.00	dB
Return Loss	200 Hz – 4000 Hz Per 600 Ohm Match (Fig.3) Per CTR21 Pan-Euro Match (Fig.5)	14 14			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		±0.60		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 Secondary winding		67 67		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

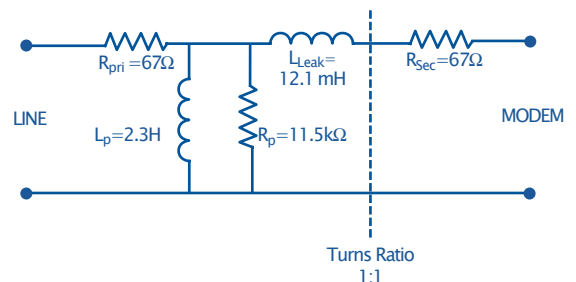
Electrical Performance Specifications (TA = 25°C unless otherwise specified)

600 OHM MATCH (FIG.3)



SCHEMATIC EQUIVALENT (FIG.4)

Typical transformer model @ 1Vrms, 1 kHz



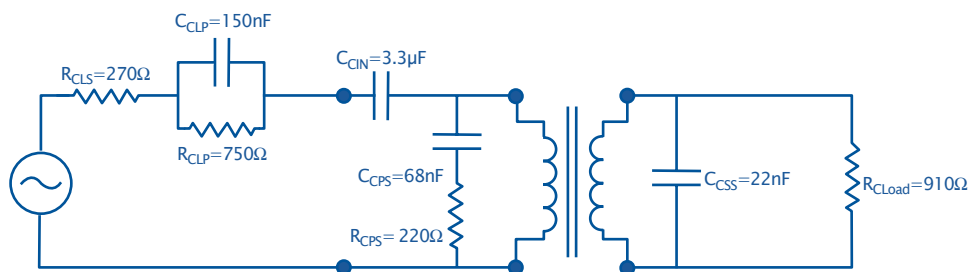
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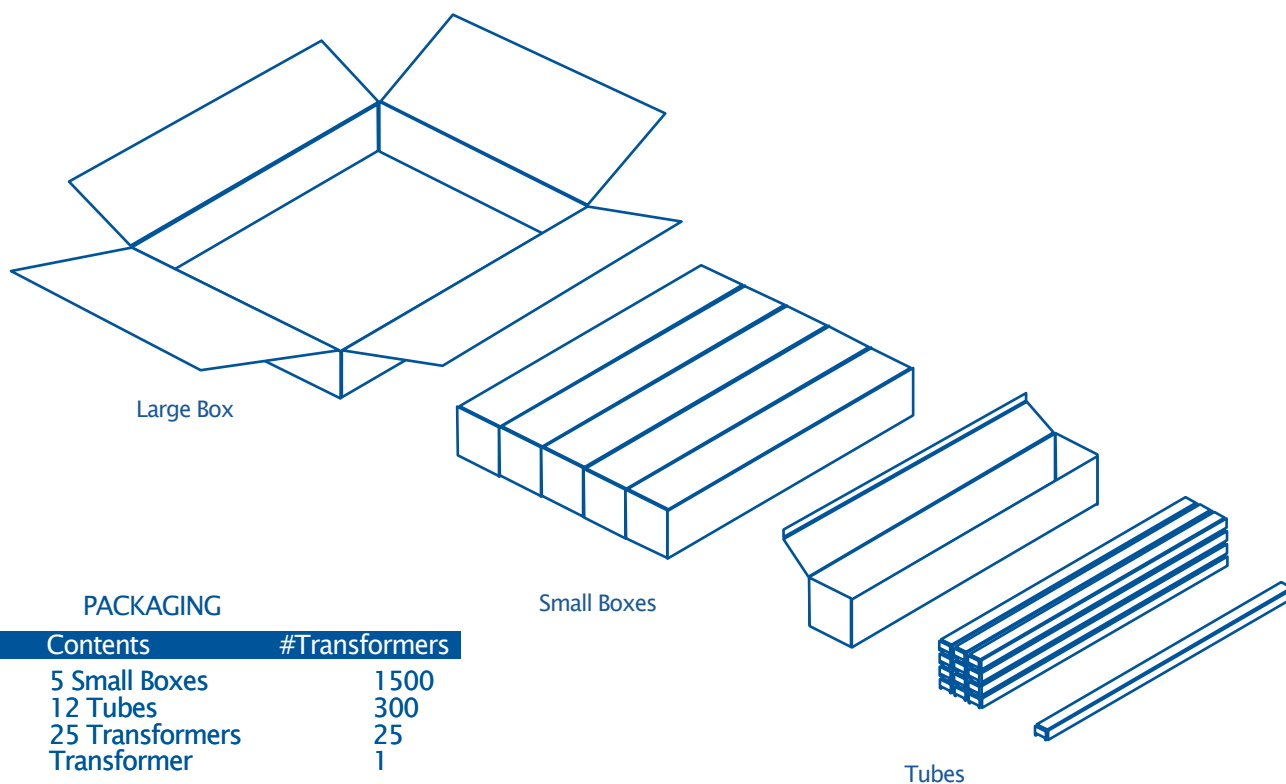


PAN-EUROPEAN CTR21 MATCH (FIG.5)

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



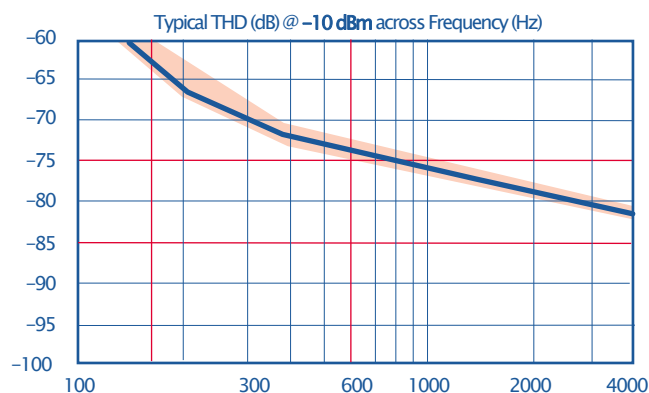
STANDARD PACKAGING (FIG.6)



PACKAGING

Material	Contents	#Transformers
Large Box	5 Small Boxes	1500
Small Box	12 Tubes	300
Tube	25 Transformers	25
--	Transformer	1

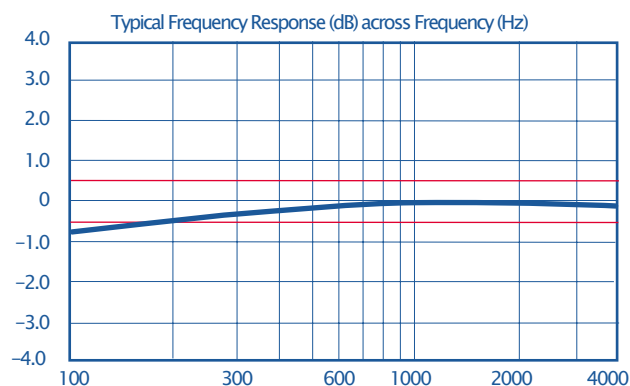
TOTAL HARMONIC DISTORTION



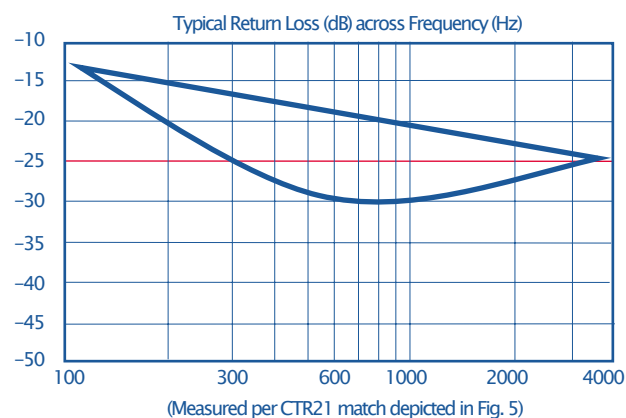
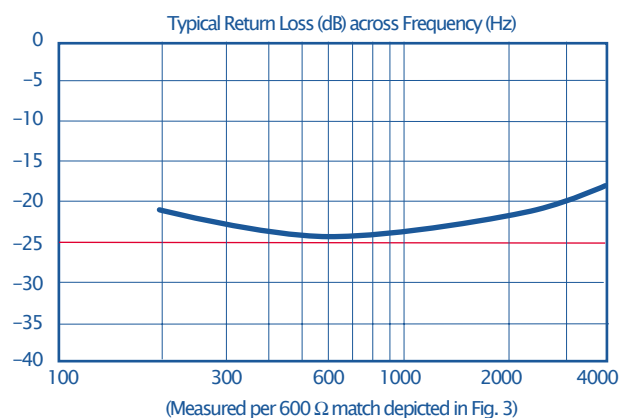
INSERTION LOSS



FREQUENCY RESPONSE



RETURN LOSS



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