



### FEATURES

- Suitable for modem speeds up to V.34 (33.6 kbps).
- Total Harmonic Distortion rated -82 dB max. @ 600 Hz, -10 dBm.
- Insertion Loss rated 1.50 dB max. @ 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

### DESCRIPTION

The Sumida EMIT -2001L is a "Dry" Encapsulated Modem Isolation Transformer suitable for up to V.34 (33.6 kbps) consumer and internet analog modem applications compliant with International safety norms.

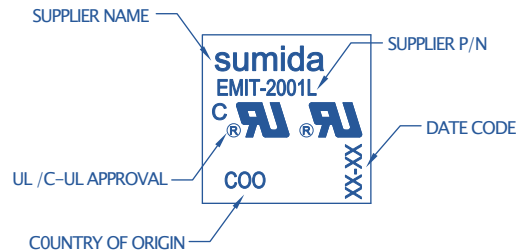
EMIT-2001L improves EMIT-2001 to a Low-Profile height, while offering identical electrical characteristics and the same economy for voice and medium-speed modem circuits.

### PRODUCT COMPLIANCE

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

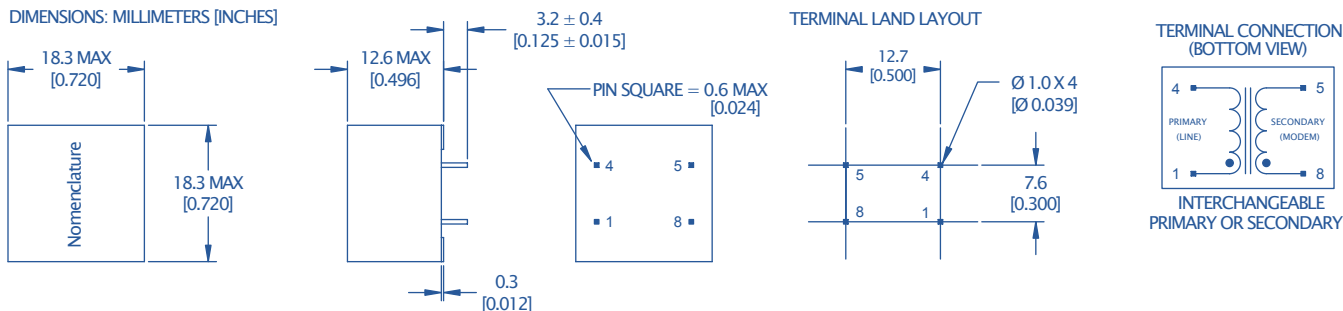


### NOMENCLATURE (FIG. 1)



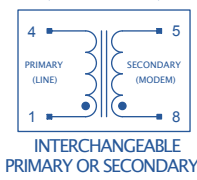
### MECHANICAL DIMENSIONS (FIG. 2)

DIMENSIONS: MILLIMETERS [INCHES]



TERMINAL LAND LAYOUT

TERMINAL CONNECTION (BOTTOM VIEW)



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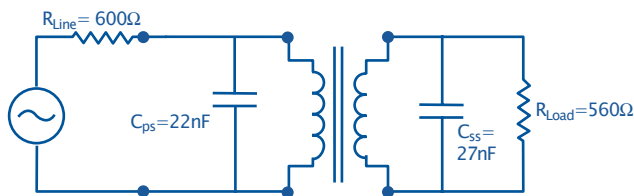
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### ELECTRICAL PERFORMANCE SPECIFICATIONS

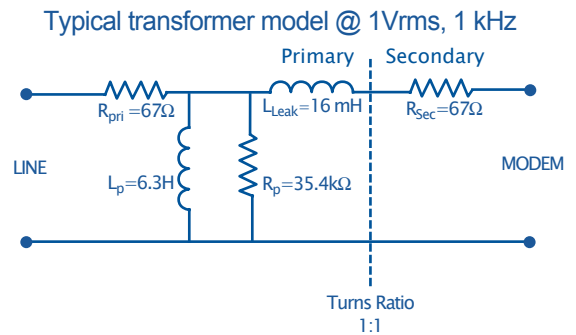
Parameters	Conditions	Min	Typ	Max	Units
Impedance	Reflected on Primary with load on Secondary		600 560		Ohms
Total Harmonic Distortion	@ 600 Hz, -10 dBm @ 150 Hz, -3 dBm		-93 -70	-82 -55	dB
Insertion Loss	Per IEEE method; @2000 Hz		1.20	1.50	dB
Return Loss	200 Hz-4000 Hz Per 600 Ohm Match (Fig.3) Per CTR21 Pan-Euro Match ( Fig.5)	18 22			dB
Dielectric Breakdown Isolation	Safety Standard tested 1 min. Production methods applied: HiPot Voltage Duration Trip Leakage Current	3000 3750 2		200	Vrms Vrms Sec μA
Frequency Response	200 Hz-4000 Hz		±0.50		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 (Rpri) Secondary winding (Rsec)		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)



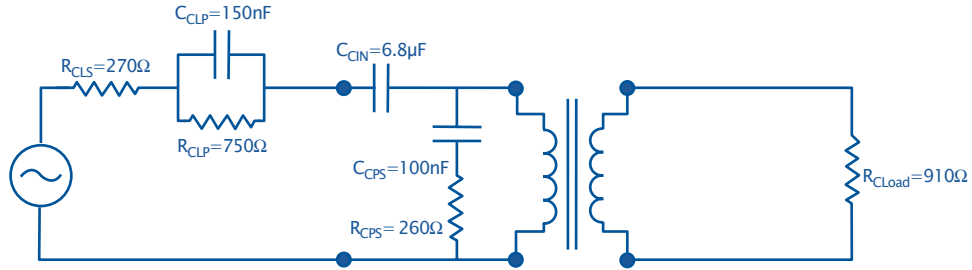
Sumida Corporation makes no assertion on warranty that the circuitry and the uses thereof disclosed herein are non-infringing on any valid US or foreign patents. Sumida assumes no liability as a result of the use of said specifications and reserves the right to make changes to specifications without notice. Sumida does not authorize or warrant any Sumida device for use in life support devices and/or systems. Contact your nearest Sumida Sales Office for the latest specifications.

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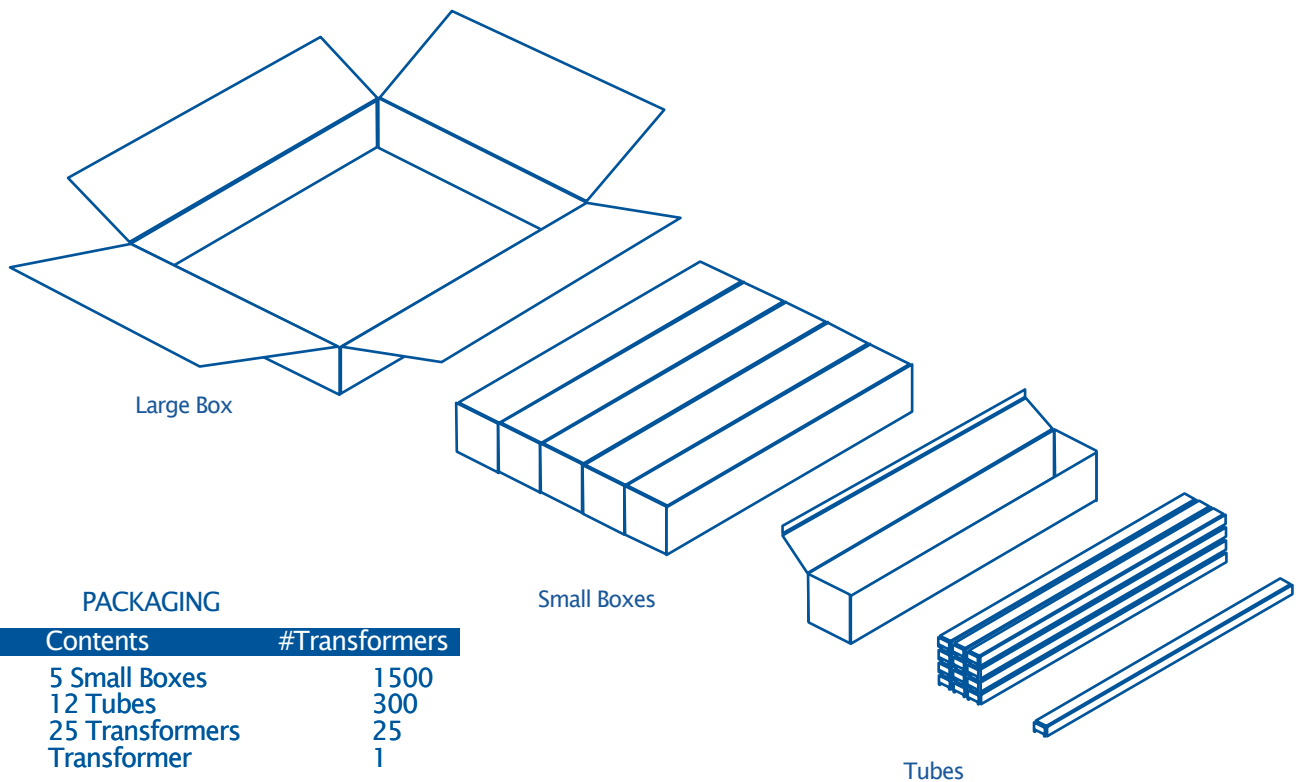


## PAN-EUROPEAN CTR21 MATCH (FIG.5)

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



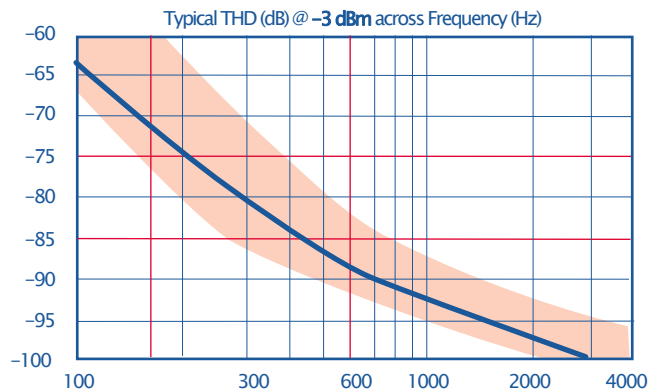
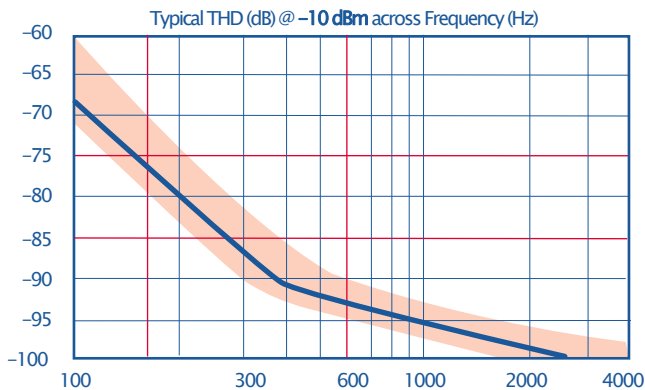
## STANDARD PACKAGING (FIG.6)



### PACKAGING

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

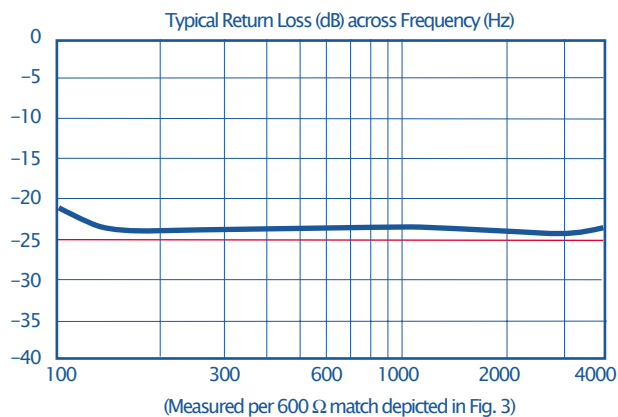
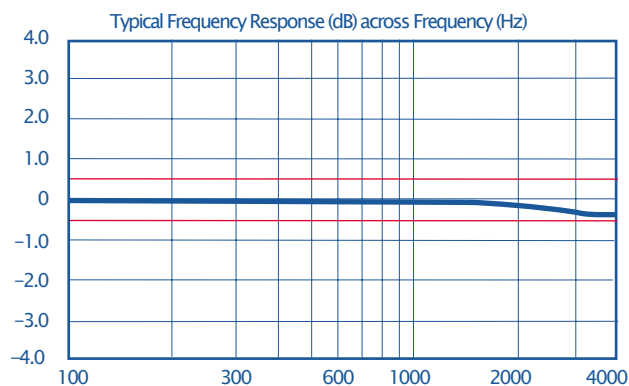
## TOTAL HARMONIC DISTORTION



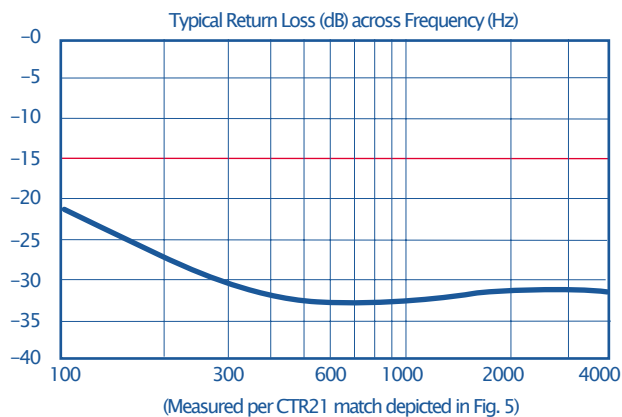
## INSERTION LOSS



## FREQUENCY RESPONSE



## RETURN LOSS



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