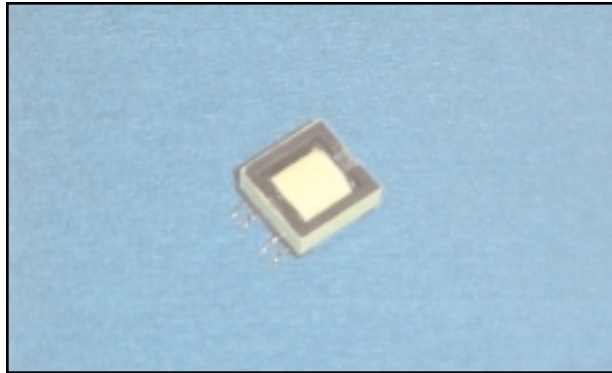


Analog Telephony / Modem Couplers



DESCRIPTION

The REMtech Magnetics SMIT-3151 is a "Wet" SMT Modem Isolation Transformer suitable for up to V.32 (9.6 kbps) analog modem applications compliant with Domestic safety norms.

SMIT-3151 is a cost-effective device for data transfer applications such as POS (credit-card) terminals, which require SMT and limited height above board. Our industry surveys revealed no other SMT coupler worldwide suited for these applications at the price point of SMIT-3151.

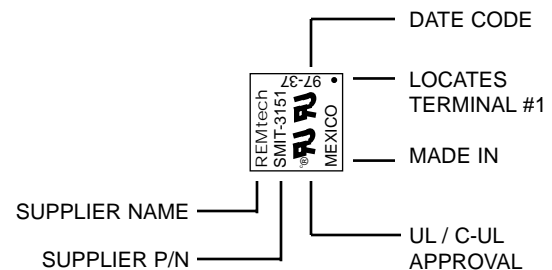
FEATURES

- Suitable for modem speeds up to V.32 (9.6 kbps).
- Total Harmonic Distortion rated -65 dB typ. @ 600 Hz, -10 dBm.
- Insertion Loss rated 3.50 dB typ. @ 1000 Hz.
- Complies with UL1459 safety norms.
- Reflects 600 Ohms on Primary with 470 Ohms Secondary Load.
- Very small PCB footprint (22.5 mm x 15.8 mm).
- Very Low-Profile (7.9 mm).
- SMT pin configuration.

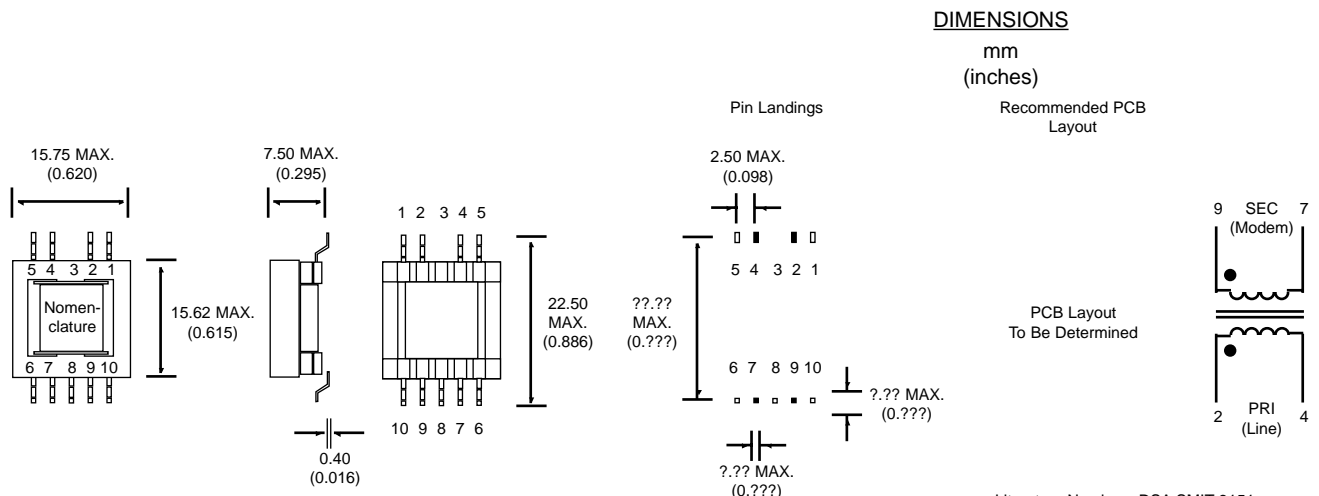
PRODUCT COMPLIANCE

- UL / C-UL recognized file number: Pending

NOMENCLATURE (Fig. 1)



MECHANICAL DIMENSIONS (Fig. 2)



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ELECTRICAL PERFORMANCE SPECIFICATIONS

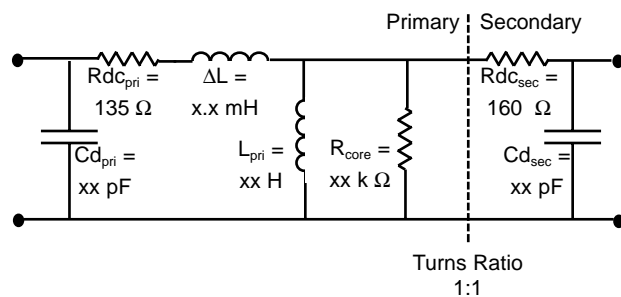
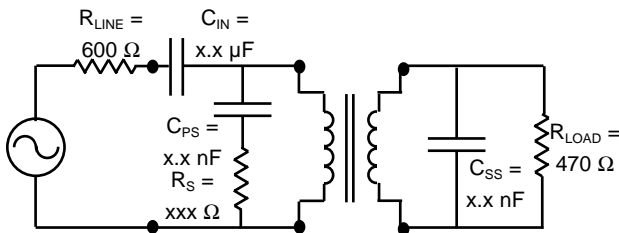
Electrical Performance Specifications ( $T_A = 25^\circ$  unless otherwise specified)

PARAMETERS	CONDITIONS	MIN	TYP	MAX	UNITS
Impedance	Reflected on Primary With Load on Secondary	-	600	-	Ohms
		-	470	-	Ohms
Total Harmonic Distortion	@ 600 Hz, -10 dBm	-	-65	-	dB
Insertion Loss	Per IEEE method; @ 1000 Hz	-	3.50	4.00	dB
Return Loss	300 Hz - 500 Hz 400 Hz - 4000 Hz per 600 Ohm Match (Fig. 3)	4	-	-	dB
		7	-	-	dB
		-	-	-	-
Dielectric Breakdown Isolation Production methods applied:	Safety Standard tested 1 Min. HiPot Voltage Duration Trip Leakage Current	1000	-	-	Vrms
		1250	-	-	Vrms
		2	-	-	Sec
		-	-	200	$\mu$ A
Frequency Response	300 Hz - 600 Hz 600 Hz - 3500 Hz	-	$\pm 5.00$	-	dB
		-	$\pm 2.00$	-	dB
Longitudinal Balance	Per FCC part 68.310 60 Hz - 1000 Hz 1000 Hz - 4000 Hz	60	-	-	dB
		40	-	-	dB
		-	-	-	-
DC Resistance @ $20^\circ\text{C}$ , $\pm 10\%$	Primary Winding Secondary Winding	-	135	-	Ohms
		-	160	-	Ohms
DC Current in Primary	-	-	90	-	mADC
Turns Ratio	Primary to Secondary; $\pm 2\%$	-	1:1	-	Turns
Operating Temperature	-	-40	-	105	$^\circ\text{C}$
Storage Temperature	-	-40	-	125	$^\circ\text{C}$
Soldering Temperature	10 Sec. Max.	-	-	260	$^\circ\text{C}$

600 OHM MATCH (Fig. 3)

SCHEMATIC EQUIVALENT (Fig. 4)

(Transformer Model @ 1 kHz)



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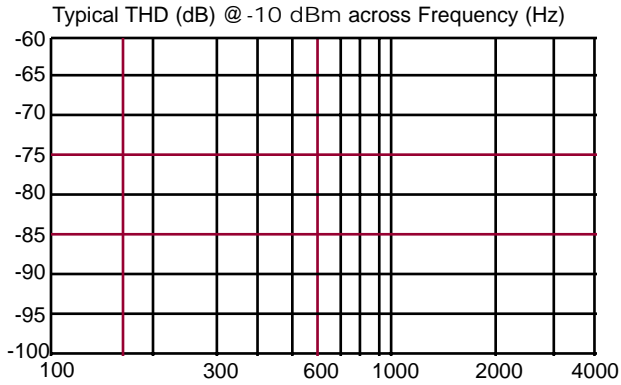
STANDARD PACKAGING

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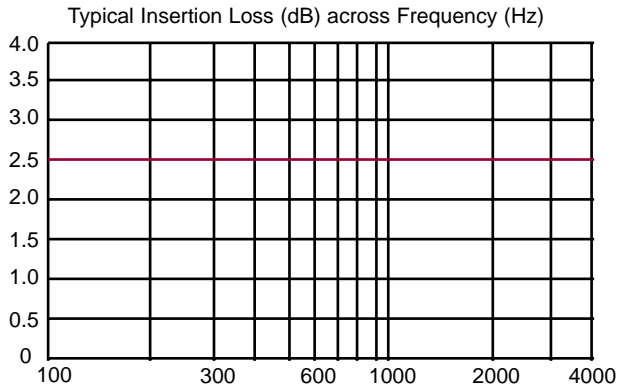
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PERFORMANCE DATA

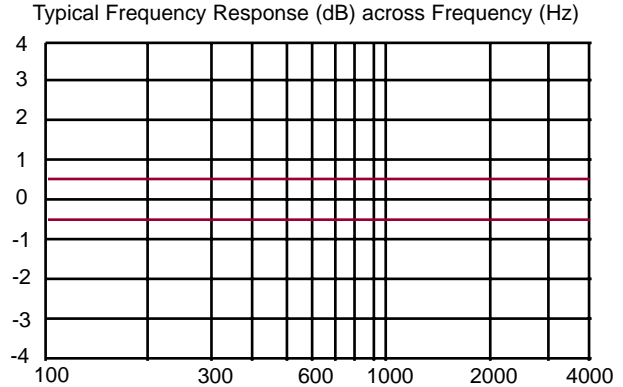
TOTAL HARMONIC DISTORTION (Fig. 5)



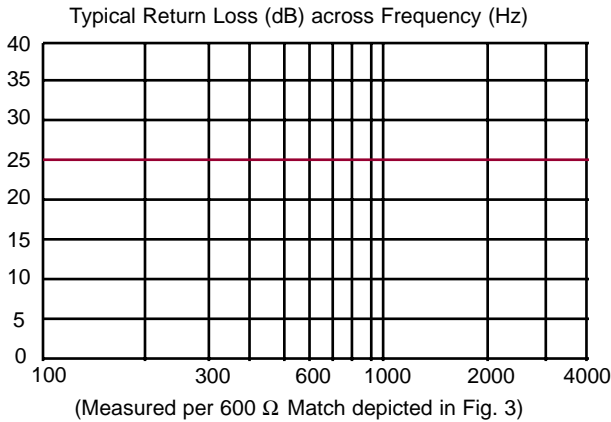
INSERTION LOSS (Fig. 6)



FREQUENCY RESPONSE (Fig. 7)



RETURN LOSS (Fig. 8)



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