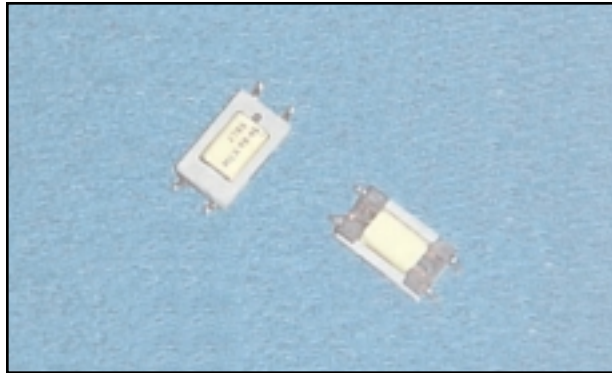


Analog Telephony / Modem Couplers



DESCRIPTION

The REMtech Magnetics SMIT-2786 is a "Dry" SMT Modem Isolation Transformer suitable for up to V.34 (33.6 kbps) consumer and internet analog modem applications requiring thin profile (ex. PCMCIA, Laptop, PDA), and compliant with Domestic safety norms.

Competitors advertise SMIT-2786 versions for V.90 (56 kbps). Distortion appears to fall short of 56K standards.

For a "thin" 56K transformer, see SMIT-3562 and SMIT-5602, the industry's first true 56K thin transformers.

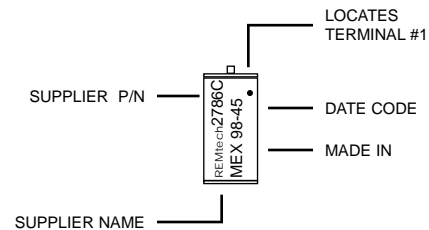
FEATURES

- Suitable for modem speeds up to V.34 (33.6 kbps).
- Total Harmonic Distortion rated -88 dB typ. @ 600 Hz, -10 dBm and -58 dB typ. @ 150 Hz, -3 dBm.
- Insertion Loss rated 2.80 dB typ. @ 1000 Hz.
- Complies with UL1459 safety norms.
- Reflects 600 Ohms on Primary with 290 Ohms Secondary Load.
- Ultra-small PCB footprint (18.8 mm x 8.4 mm).
- Thin (PCMCIA) Profile (4.37 mm).
- SMT Industry-standard pin configurations.

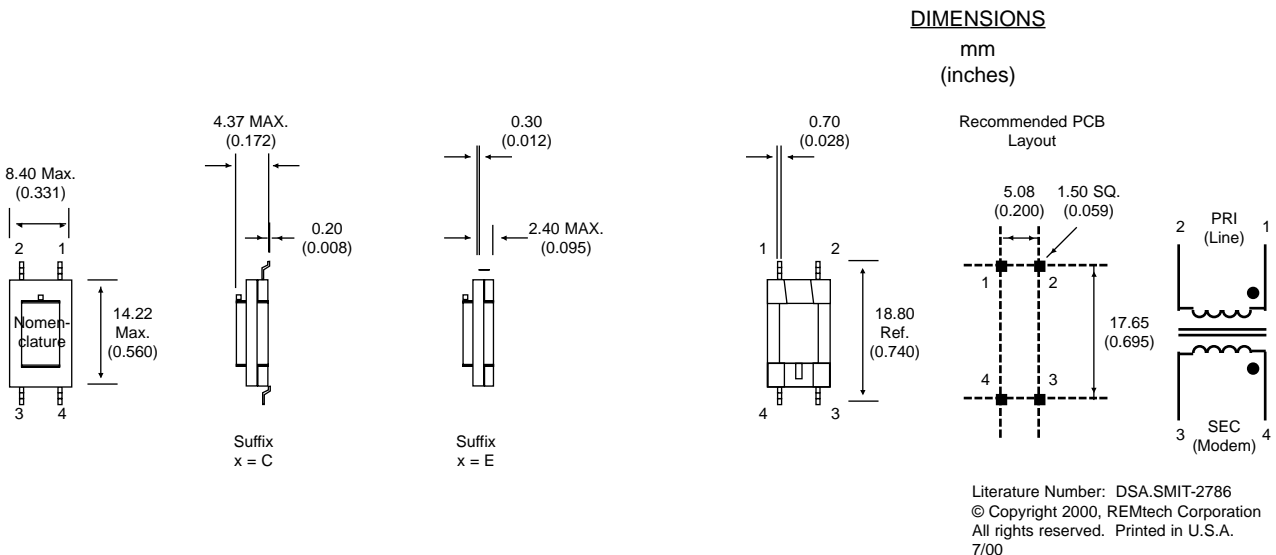
PRODUCT COMPLIANCE

- UL / C-UL recognized file number: E171120

NOMENCLATURE (Fig. 1)



MECHANICAL DIMENSIONS (Fig. 2)



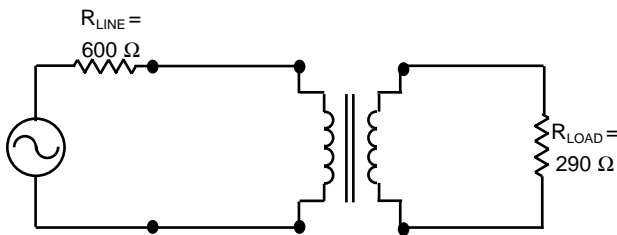
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ELECTRICAL PERFORMANCE SPECIFICATIONS

Electrical Performance Specifications ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise specified)

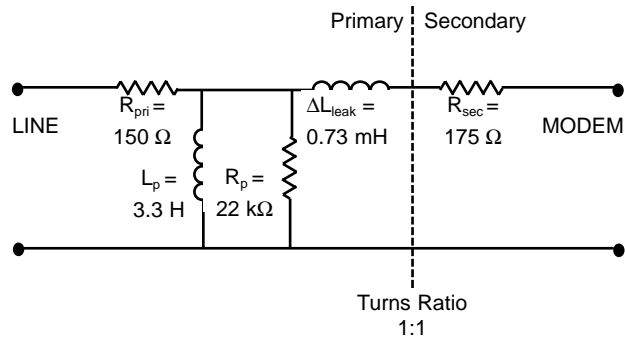
PARAMETERS	CONDITIONS	MIN	TYP	MAX	UNITS
Impedance	Reflected on Primary With Load on Secondary	-	600	-	Ohms
		-	290	-	Ohms
Total Harmonic Distortion	@ 600 Hz, -10 dBm @ 150 Hz, -3 dBm	-	-88	-85	dB
		-	-58	-52	dB
Insertion Loss	Per IEEE method; @ 1000 Hz	-	2.80	2.90	dB
Return Loss	300 Hz - 3500 Hz Per 600 Ohm Match (Fig. 3)	30	-	-	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	μA
Frequency Response	200 Hz - 4000 Hz	-	± 0.15	-	dB
Longitudinal Balance	Per FCC part 68.310 60 Hz - 1000 Hz 1000 Hz - 4000 Hz	60	-	-	dB
		40	-	-	dB
DC Resistance @ 20°C , $\pm 10\%$	Primary Winding Secondary Winding	-	150	-	Ohms
		-	175	-	Ohms
DC Current in Primary	-	-	0	-	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)

(Typical Transformer Model @ 1 V, 1 kHz)

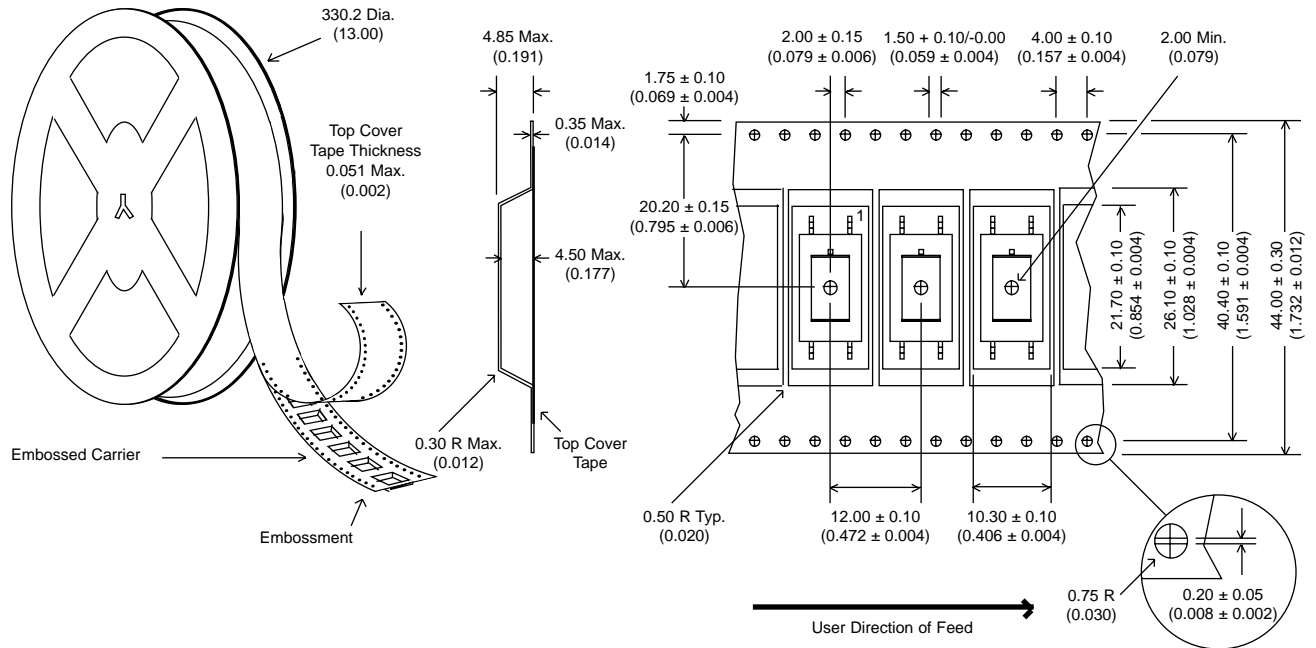


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STANDARD PACKAGING (Fig. 9)

Tape and Reel Packaging for SMIT-2786

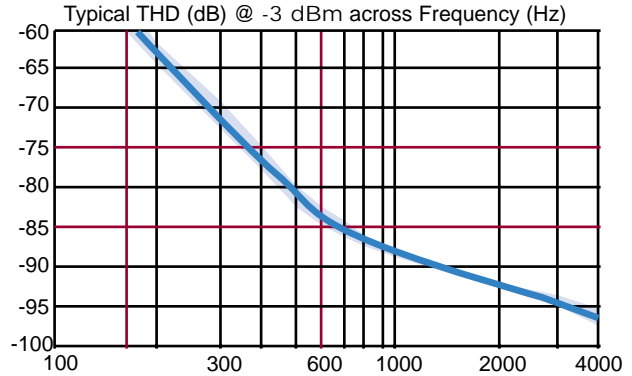
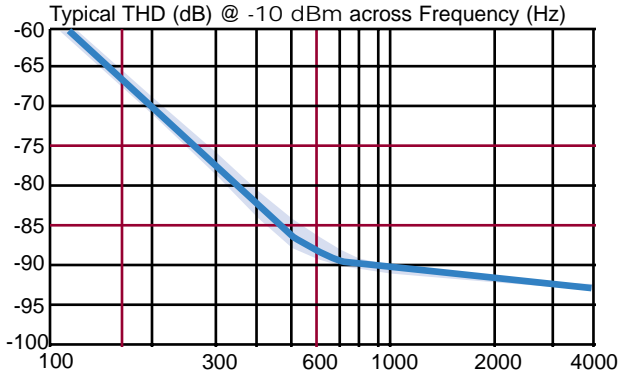


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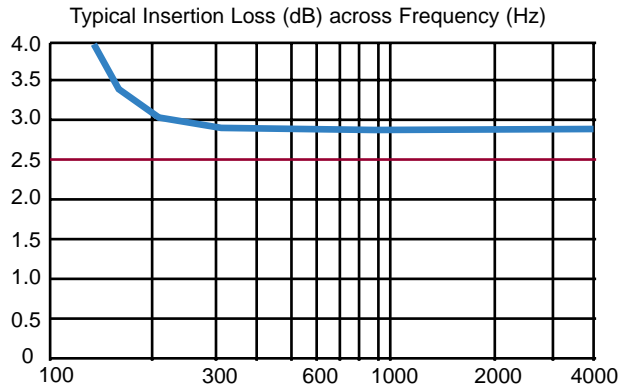
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PERFORMANCE DATA

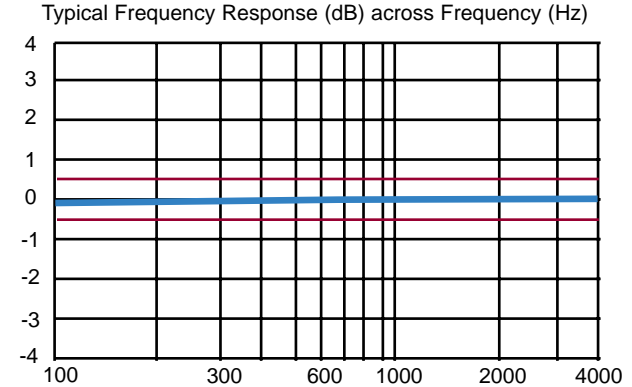
TOTAL HARMONIC DISTORTION (Fig. 5)



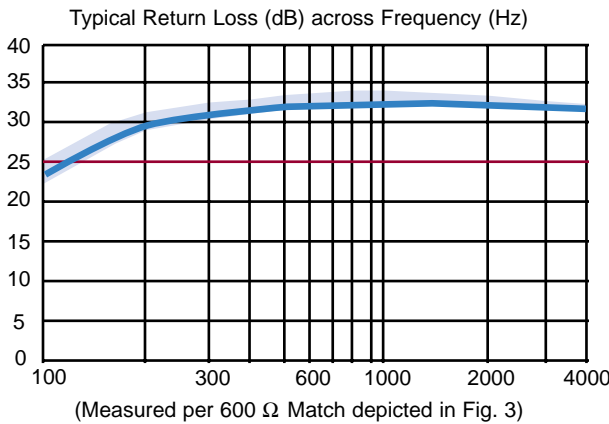
INSERTION LOSS (Fig. 6)



FREQUENCY RESPONSE (Fig. 7)



RETURN LOSS (Fig. 8)



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