

**FEATURES**

- Suitable for modem speeds up to V.90 (56 kbps).
- Total Harmonic Distortion rated -94 dB typ. @ 600 Hz, -10 dBm; and -78 dB typ. @ 150 Hz, -3 dBm.
- Insertion Loss rated 3.20 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 (14.2 mm x 9.6 mm).
- Very Low-Profile (10.0 mm).
- SMT Industry-standard pin configuration.

**DESCRIPTION**

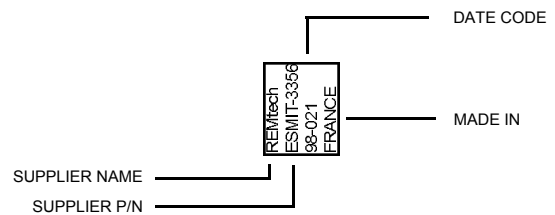
The REMtech Magnetics ESMIT-3356 is a “Dry” Encapsulated SMT Modem Isolation Transformer suitable for up to V.90 (56 kbps) analog modem and voice applications requiring SMT and small PCB footprint.. ESMIT-3356 complies with International safety norms.

Typical applications for ESMIT-3356 include computer telephony routers, remote access servers, and boards with gangs of telephone interface circuits requiring ESMIT-3356’s small footprint, but not thin profile.

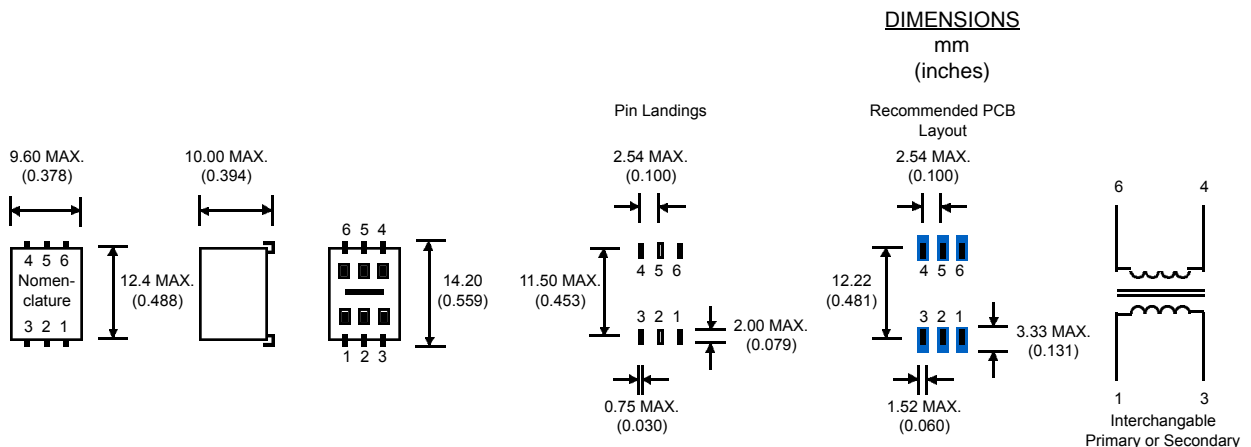
**PRODUCT COMPLIANCE**

- UL / C-UL recognized file number: E171120
- BSI certificate number(s): Pending
- BAPT certificate of recognition: Pending

**NOMENCLATURE (Fig. 1)**



**MECHANICAL DIMENSIONS (Fig. 2)**



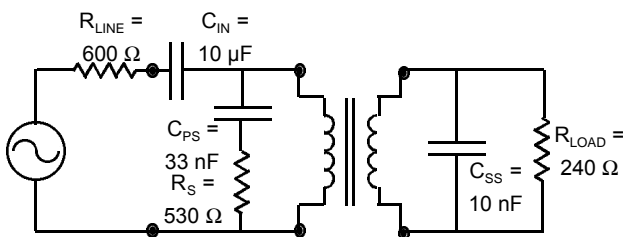
Literature Number: DSA.ESMIT-3356  
© Copyright 2000, REMtech Corporation  
All rights reserved. Printed in U.S.A.  
9/00

**ELECTRICAL PERFORMANCE SPECIFICATIONS**

**Electrical Performance Specifications (T<sub>A</sub> = 25 °C unless otherwise specified)**

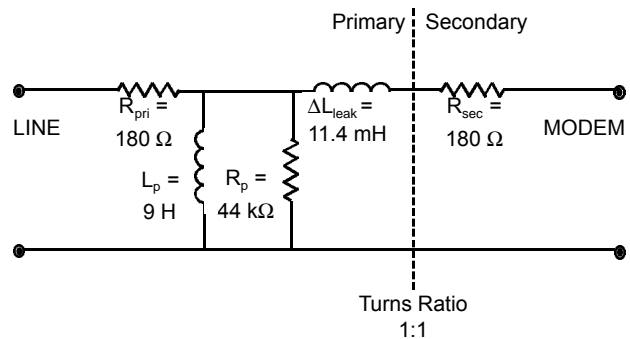
PARAMETERS	CONDITIONS	MIN	TYP	MAX	UNITS
Impedance	Reflected on Primary With Load on Secondary	-	600	-	Ohms
		-	240	-	Ohms
Total Harmonic Distortion	@ 600 Hz, -10 dBm @ 150 Hz, -3 dBm	-	-94	-85	dB
		-	-78	-70	dB
Insertion Loss	Per IEEE method; @ 2000 Hz, 20 °C	-	3.20	3.50	dB
Return Loss	200 Hz - 4000 Hz Per 600 Ohm Match (Fig. 3) Per CTR21 Pan-Euro Match (Fig. 10)	18	-	-	dB
		25	-	-	dB
Dielectric Breakdown Isolation Production methods applied:	Safety Standard tested 1 Min.	3000	-	-	Vrms
	HiPot Voltage	3750	-	-	Vrms
	Duration	2	-	-	Sec
	Trip Leakage Current	-	-	200	µA
Frequency Response	200 Hz - 4000 Hz	-	±0.25	-	dB
Longitudinal Balance	Per FCC part 68.310 60 Hz - 4000 Hz	80	-	-	dB
DC Resistance @ 20°C, ±10%	Primary Winding Secondary Winding	-	180	-	Ohms
		-	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	-	-	240	°C

**600 OHM MATCH (Fig. 3)**



**SCHEMATIC EQUIVALENT (Fig. 4)**

(Typical Transformer Model @ 1 V, 1 kHz)



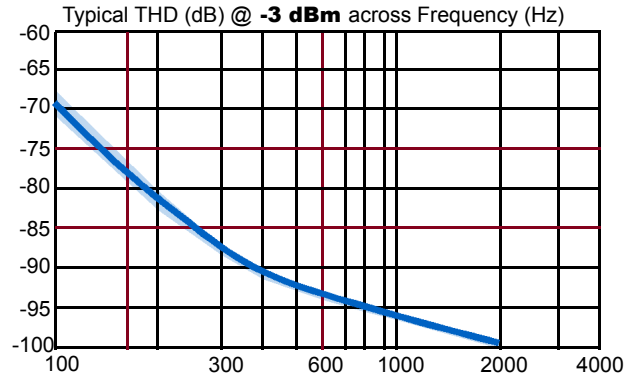
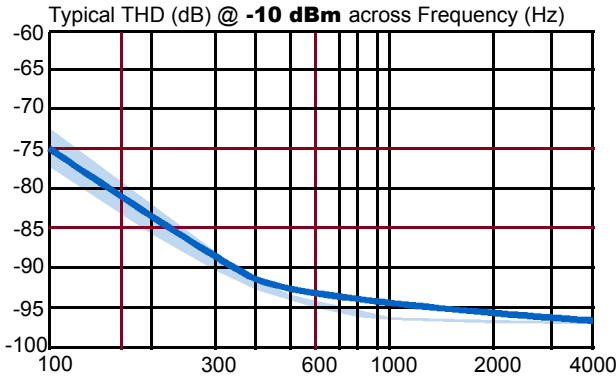
REMtech Corporation makes no assertion or warranty that the circuitry and the uses thereof disclosed herein are non-infringing on any valid US or foreign patents. REMtech assumes no liability as a result of the use of said specifications and reserves the right to make changes to specifications without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

Literature Number: DSB.ESMIT-3356  
© Copyright 2000, REMtech Corporation  
All rights reserved. Printed in U.S.A.  
9/00

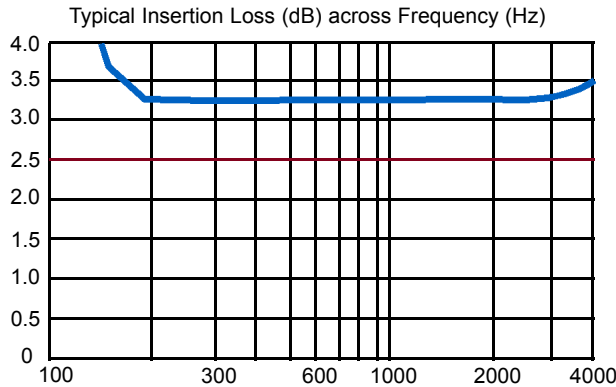


**PERFORMANCE DATA**

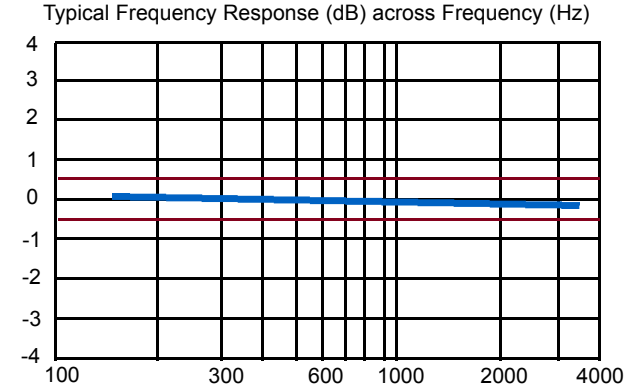
**TOTAL HARMONIC DISTORTION (Fig. 5)**



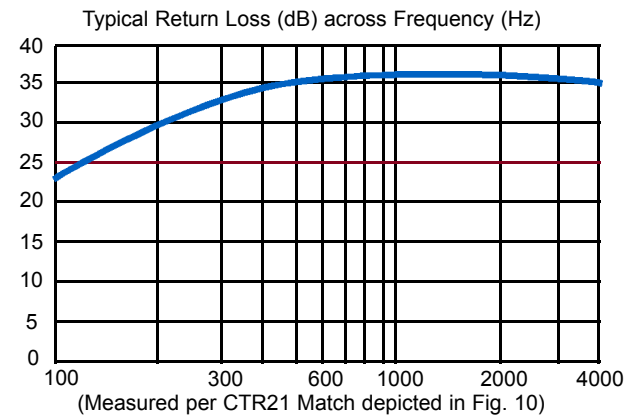
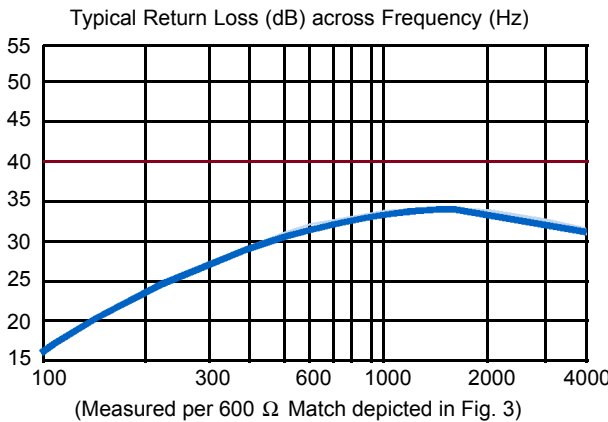
**INSERTION LOSS (Fig. 6)**



**FREQUENCY RESPONSE (Fig. 7)**



**RETURN LOSS (Fig. 8)**

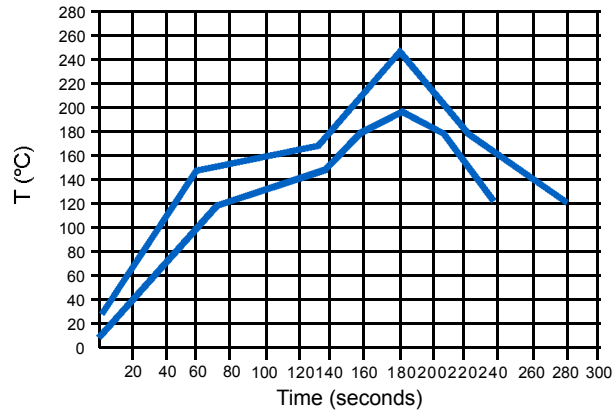


REMtech Corporation makes no assertion or warranty that the circuitry and the uses thereof disclosed herein are non-infringing on any valid US or foreign patents. REMtech assumes no liability as a result of the use of said specifications and reserves the right to make changes to specifications without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

Literature Number: DSD.ESMIT-3356  
 © Copyright 2000, REMtech Corporation  
 All rights reserved. Printed in U.S.A.  
 9/00

**ADDITIONAL DATA**

**TYPICAL REFLOW PROFILE (Fig. 11)**



Literature Number: DSE.ESMIT-3356  
© Copyright 2000, REMtech Corporation  
All rights reserved. Printed in U.S.A.  
9/00