

HIGH FREQUENCY MAGNETICS

T1/E1 Miniature Surface Mount Transformers

TM00144

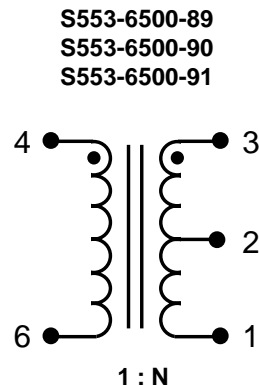
- Meets pulse template and return loss requirements of T1/E1 Interface circuits
- Minimum interwinding breakdown voltage of 1500 Vrms
- Operating Temperature Range: -40° C to +85° C
- Meets IEC 695, 2-2 flammability requirements
- PWB Process Capability: Standard Printed Wiring Board assembly techniques, total-immersion cleaning
- Reliability testing: Shock, vibration, temperature cycling, temperature - humidity - bias

ELECTRICAL SPECIFICATIONS at 25° C

Part Number	Turns Ratio	Inductance ¹	Leakage Inductance ²	DCR		Interwinding Capacitance	Surge Voltage Capability ³	
	(4 - 6) : (3 - 1)	(4 - 6)	(4 - 6)	(4 - 6)	(3 - 1)		Metallic	Longitudinal
	± 1%	mH min	µH max	Ω max	Ω max	pF	V peak	V peak
S553-6500-89	1 : 1CT	1.6	1.2	1.7	1.8	45 max	3000	2500
S553-6500-90	1 : 1.14CT	1.6	0.8	2.1	2.5	35 typ	2500	2500
S553-6500-91	1 : 1.35CT	1.3	0.8	1.9	2.5	35 typ	2500	2500

1. measured at 10 kHz, 0.1 Vac
2. measured at 100 kHz, 0.1 Vac
3. See Supplementary Information

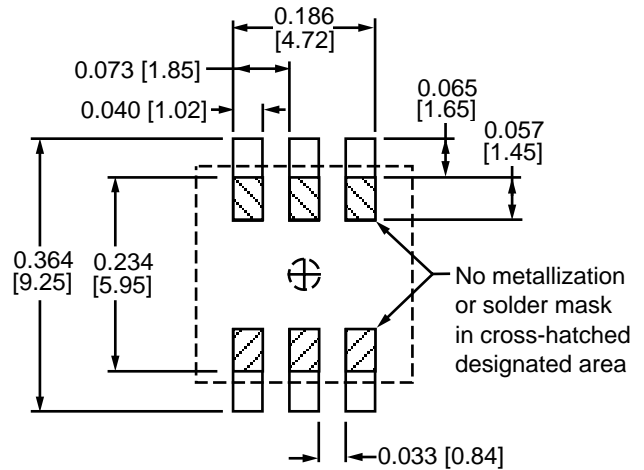
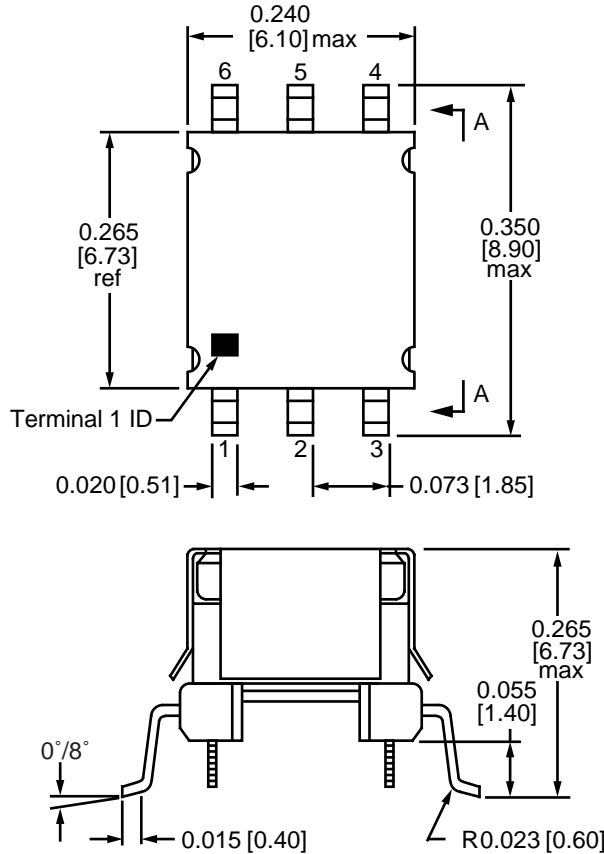
SCHEMATIC



TM00144

MECHANICAL

S553-6500-89
S553-6500-90
S553-6500-91



Suggested PCB Pad Layout

Note: Unless otherwise specified, dimensions are nominal and in inches [millimeters].

Supplementary Information

Safety Agency Compatibility	Underwriters Laboratories, Inc. UL 1950
Surge Voltage Capability	10/700 μ s; 10 repetitions of alternating polarity, generator output: peak voltage, 25 Ω source
Flammability Compliance	IEC-695, 2-2 (needle flame test), materials are UL 94 VO approved
Simulation Model	SPICE computer simulation file available on request
Surface-Mount Packaging	Tape and Reel; 16 mm wide by 12 mm pitch; 13 inch OD; 4 inch ID 650 transformers per reel, maximum Meets ANSI/EIA 481-2 Carrier Tape Standards—JEDEC SO package
Terminal Lead Coplanarity	0.004 inch [0.10 mm]
PWB Process Capability	Machine placement (recommendation: locate by terminals, not body)

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