

# HIGH FREQUENCY MAGNETICS

## T1/E1 Dual Transformers

TM01117

- Transmit transformer and receive transformer in one surface mount package
- S553-6500-E5, S553-6500-E6 and S553-6500-E7 are industrial temperature versions of S553-6500-39, S553-6500-76 and S553-6500-A4 respectively
- Meets ITU-T G.703 return loss from -40° to +85° C
- UL 1950 approved: file number E150991
- Operating temperature range -40° 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
- Interwinding breakdown voltage: 1500 Vrms min

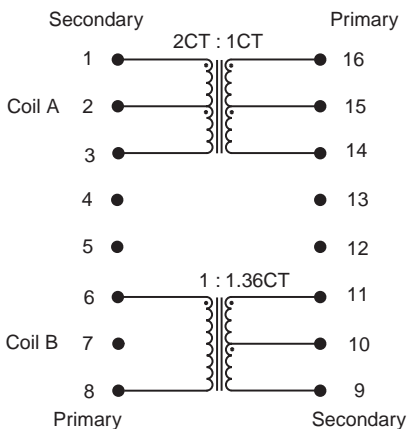
### ELECTRICAL SPECIFICATIONS at 25° C

Part Number	Turns Ratio ±2%		Primary Inductance at 10 kHz		Leakage Inductance at 1 MHz		DCR Ω max				Capacitance pF max	Return Loss at 102 kHz 120Ω Application			
	Pri : Sec		mH min		μH max		Primary		Secondary			Pri to Sec	25° C dB typ		-40 to +85° C dB min
	Coil A	Coil B	Coil A	Coil B	Coil A	Coil B	Coil A	Coil B	Coil A	Coil B	Coil A		Coil B	Coil A	Coil B
S553-6500-E5	1CT : 2CT	1 : 1.36CT	1.8	1.6	0.5	0.5	0.75	0.6	1.5	0.7	35	30 <sup>1</sup>	21 <sup>2</sup>	18 <sup>1</sup>	18 <sup>2</sup>
S553-6500-E6	1CT : 1CT	1CT : 2CT	1.8	1.8	0.5	0.5	0.6	0.75	0.6	1.5	35	32 <sup>3</sup>	30 <sup>1</sup>	19 <sup>3</sup>	18 <sup>1</sup>
S553-6500-E7	1CT : 1CT	1CT : 1.36CT	1.8	1.3	0.5	0.5	0.6	0.5	0.6	0.7	35	32 <sup>3</sup>	20 <sup>2</sup>	19 <sup>3</sup>	18 <sup>2</sup>

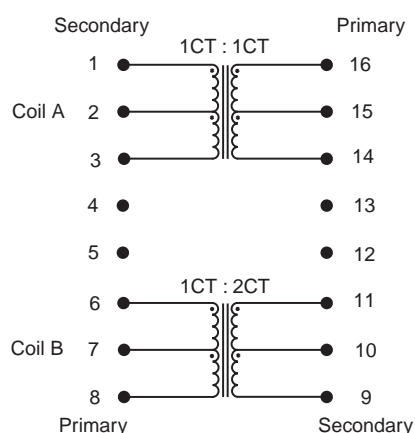
1. Secondary terminated in 480 Ω
2. Primary terminated in 54 Ω
3. Primary or secondary terminated in 120 Ω

### SCHEMATIC

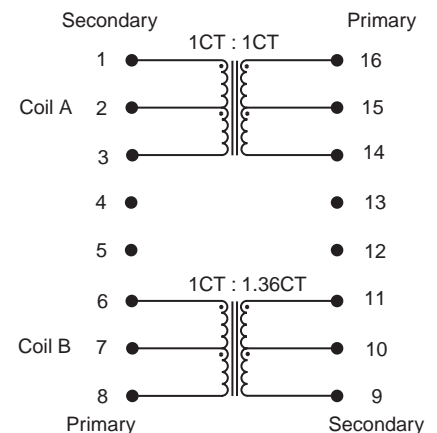
**S553-6500-E5**



**S553-6500-E6**



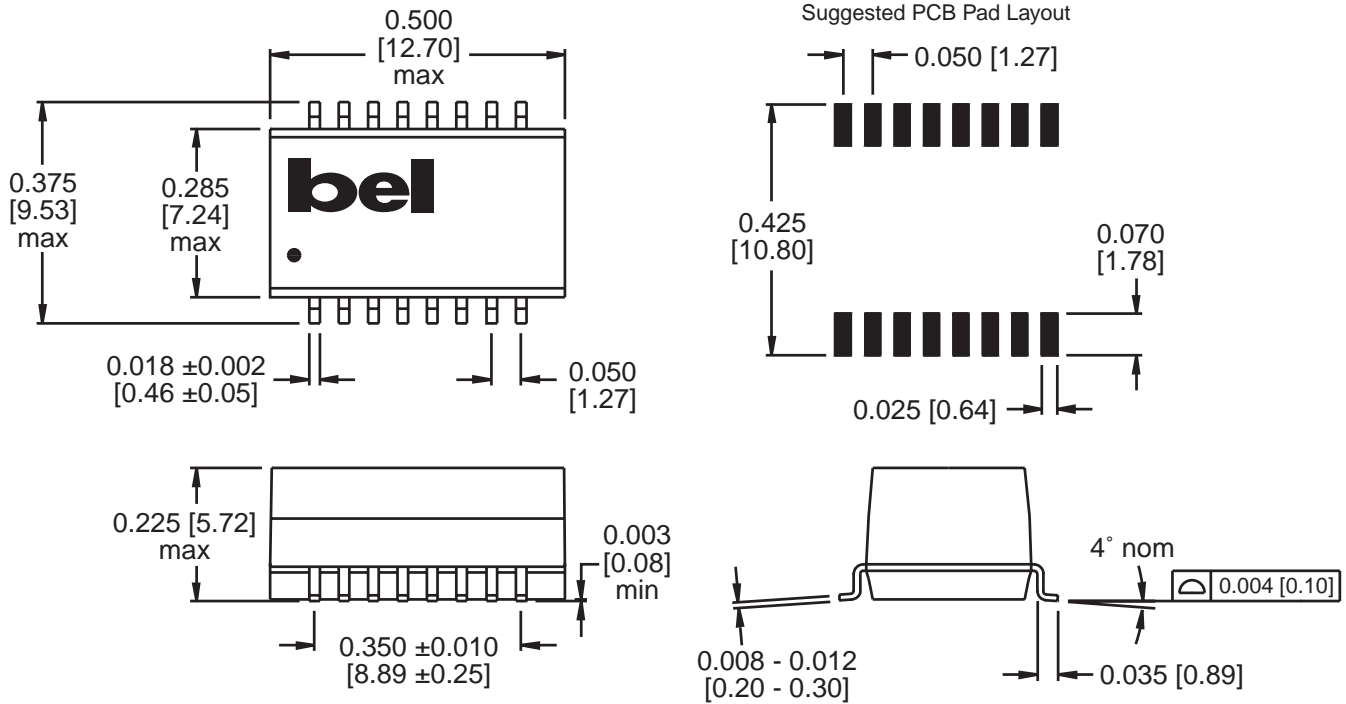
**S553-6500-E7**



TM01117

### MECHANICAL

S553-6500-E5  
S553-6500-E6  
S553-6500-E7



Dimensions are in inches [millimeters].  
Standard dimension tolerance is ±0.005 [0.13] unless otherwise noted.

### Tape and Reel Packaging

24 mm wide by 12 mm pitch; 13 inch OD, 4 inch ID  
750 modules per reel, maximum  
Meets ANSI/EIA 481-2 Carrier Tape Standards - JEDEC SO Package

©2001 Bel Fuse Inc. Specifications subject to change without notice. 11.01

#### CORPORATE

**Bel Fuse Inc.**  
206 Van Vorst Street  
Jersey City, NJ 07302  
Tel 201-432-0463  
Fax 201-432-9542  
www.belfuse.com

#### FAR EAST

**Bel Fuse Ltd.**  
8F / 8 Luk Hop Street  
San Po Kong  
Kowloon, Hong Kong  
Tel 852-2328-5515  
Fax 852-2352-3706  
www.belfuse.com

#### EUROPE

**Bel Fuse Europe Ltd.**  
Preston Technology Management Centre  
Marsh Lane, Suite G7, Preston  
Lancashire, PR1 8UD, U.K.  
Tel 44-1772-556601  
Fax 44-1772-888366  
www.belfuse.com