

# HIGH FREQUENCY MAGNETICS

## T1/E1 Octal Transformer Modules



TM01120

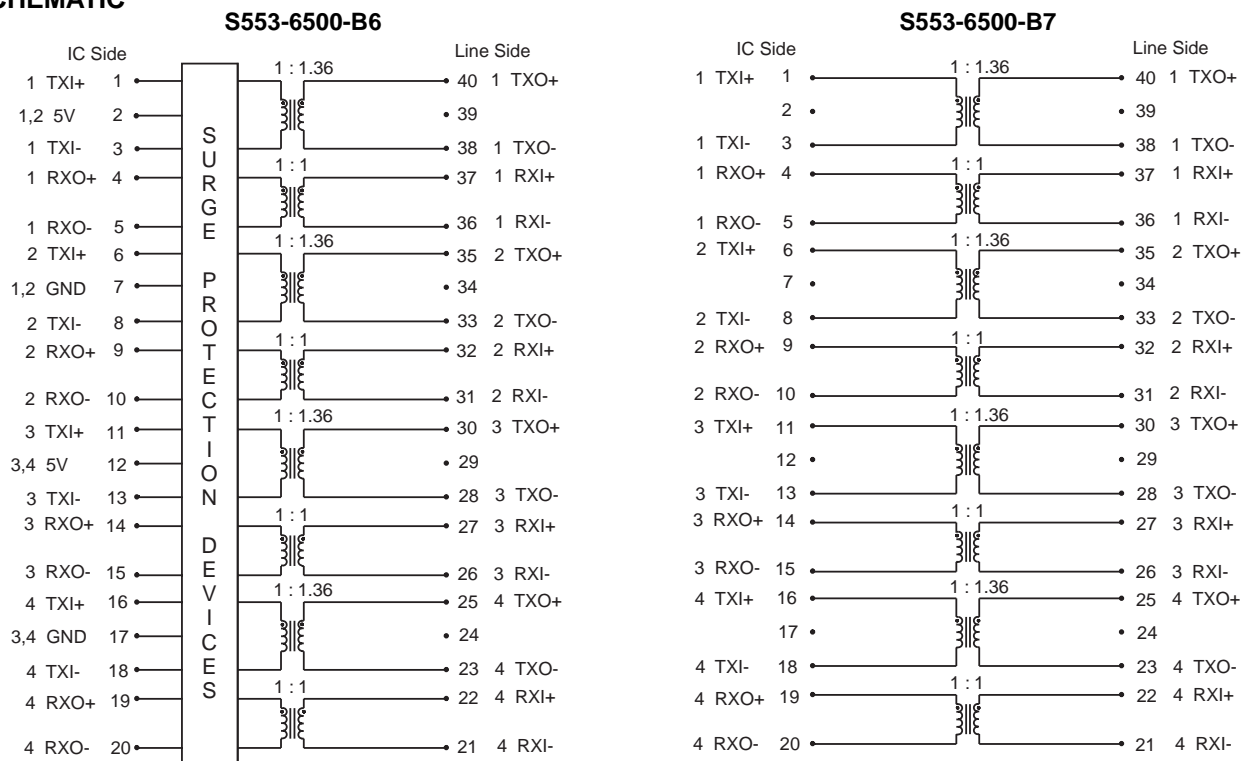
- Optimized for line interface devices listed on next page
- Eight transformers in one surface mount package
- Two modules:  
S553-6500-B6 with transformers and IC-side surge protection devices  
S553-6500-B7 with transformers only
- Tight ratio tolerance assists impedance matching
- Meets ITU-T G.703 return loss from -40° to +85° C
- 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
- UL 1950 approved: file number E150991

### ELECTRICAL SPECIFICATIONS at 25° C

Part Number	Turns Ratio ±2%		Primary Inductance at 10 kHz		Leakage Inductance at 1 MHz		DCR Ω max				Interwinding Capacitance pF max	Return Loss at 102 kHz 120Ω Application <sup>1</sup>			
			mH min		µH max							25° C dB typ		-40 to +85° C dB min	
	TXI : TXO	RXI : RXO	TXI	RXI	TXI	RXO	TXI	TXO	RXI	RXO		TX	RX	TX	RX
S553-6500-B6	1 : 1.36	1 : 1	1.6	1.8	0.6	0.5	0.6	0.7	0.6	0.6	35	21	30	18	19
S553-6500-B7	1 : 1.36	1 : 1	1.6	1.8	0.6	0.5	0.6	0.7	0.6	0.6	35	21	30	18	19

1. Terminated in 54 Ω for TX and 120 Ω for RX

### SCHEMATIC



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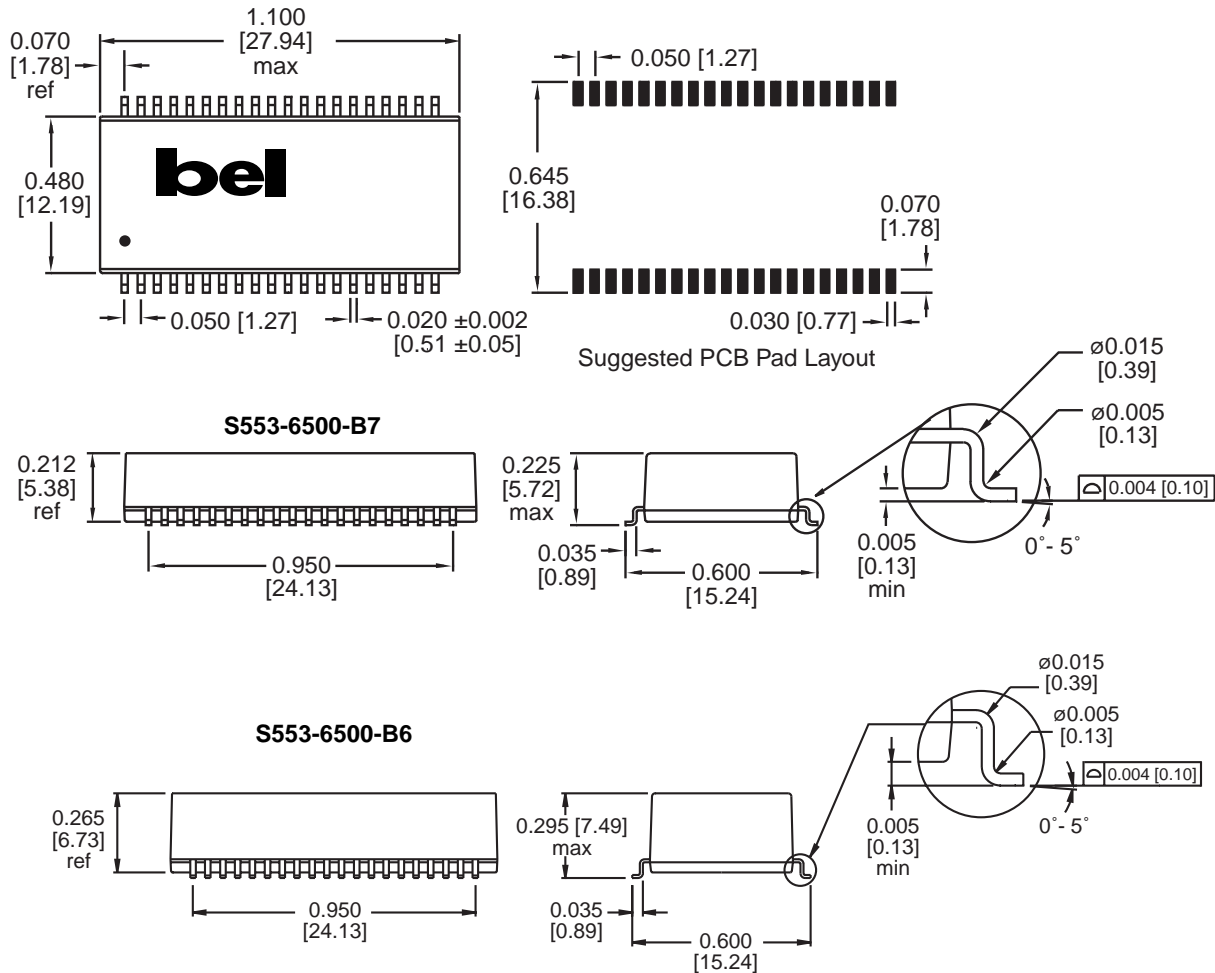
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#### MECHANICAL

Meets or exceeds all circuit requirements for:

Dallas DS21Q48, DS21Q552, DS21Q554,  
Intel LXT334, LXT335  
Conexant BT8370, BT8375, BT8376

#### S553-6500-B6 and S553-6500-B7



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

#### S553-6500-B6 Surge Protection Devices

TVS Diode Array: Protek PSRDA05-4

Number of arrays: 4

**Note:** Surge protection provided by the Bel module is equivalent to that advertised in the Protek PSRDA05-4 product specification.

#### Tape and Reel Packaging

44 mm wide by 24 mm pitch; 13 inch OD, 6 inch ID

200 modules per reel, maximum

Meets ANSI/EIA 481-2 Carrier Tape Standards - JEDEC SO Package

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