

# HIGH FREQUENCY MAGNETICS

## T1/E1 Octal Transformer Modules



TM01110

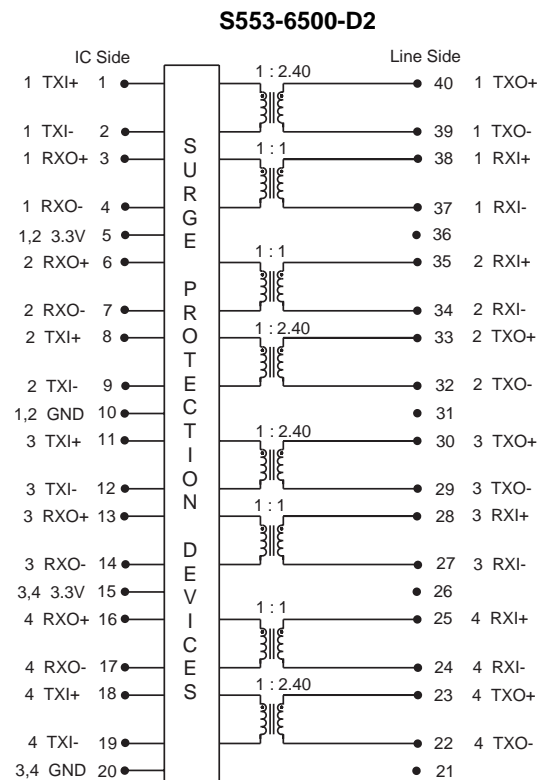
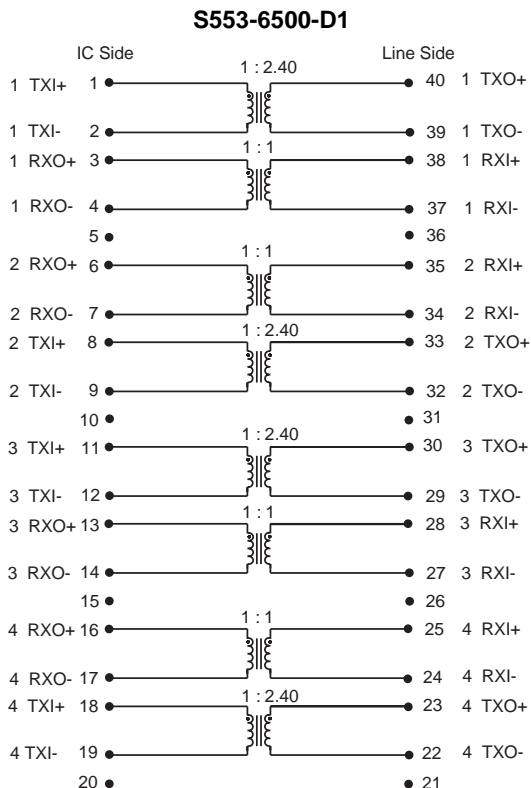
- Optimized for Infineon PEB 22504 and PEB 22554
- Eight transformers in one surface-mount package
- Two modules:  
S553-6500-D1 with eight transformers  
S553-6500-D2 with eight transformers and IC-side surge protection devices
- Meets ITU-T G.703 return loss from -40° to +85° C
- Interwinding breakdown voltage: 1500 Vrms min
- 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
- UL 1950 approved: S553-6500-D1 file number E150991  
S553-6500-D2 pending

### 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 <sup>1</sup>			
	IC : Line		mH min		μH max		IC Side		Line Side		Winding to Winding	25° C dB typ		-40 to +85° C dB min	
	TX	RX	TX	RX	TX	RX	TX	RX	TX	RX		TX	RX	TX	RX
S553-6500-D1	1 : 2.40	1 : 1	1.0	1.8	0.3	0.5	0.6	0.7	1.4	0.7	35	18	32	18	19
S553-6500-D2	1 : 2.40	1 : 1	1.0	1.8	0.3	0.5	0.6	0.7	1.4	0.7	35	18	32	18	19

1. Terminated in 15 Ω for TX and 120 Ω for RX

### SCHEMATIC

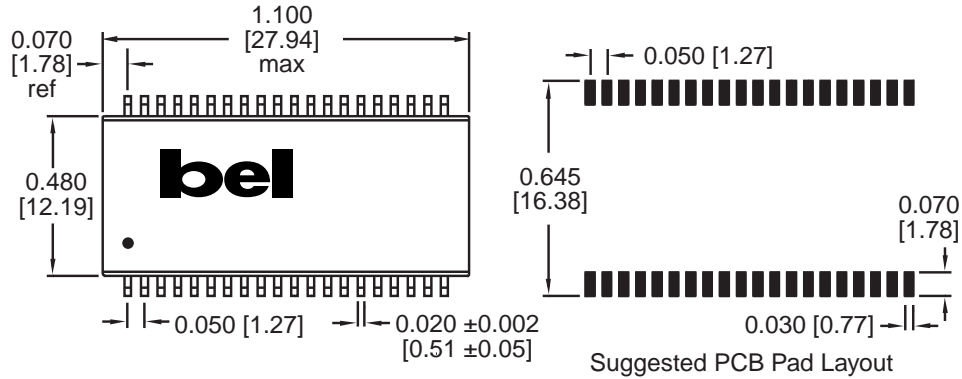


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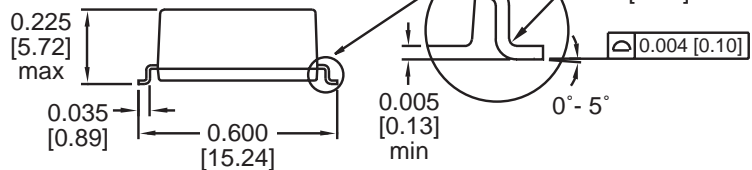
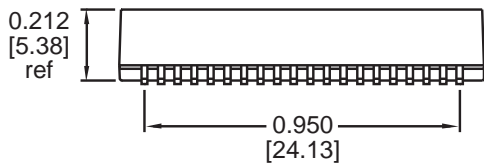
TM01110

#### MECHANICAL

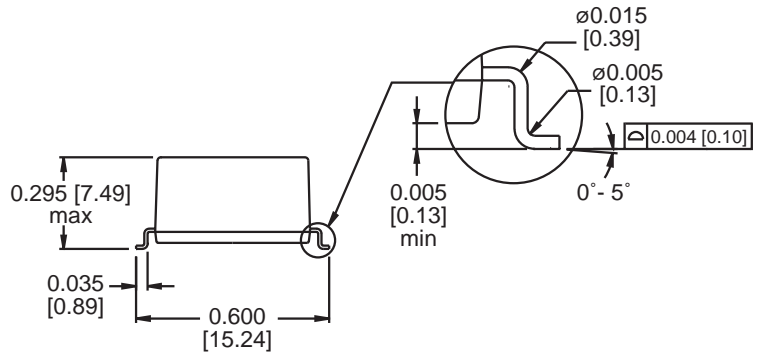
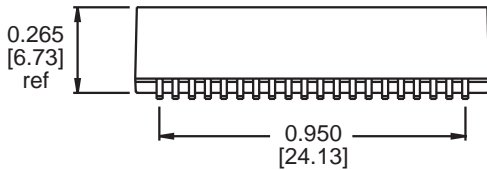
S553-6500-D1  
S553-6500-D2



S553-6500-D1



S553-6500-D2



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

#### S553-6500-D2 Surge Protection Devices

TVS Diode Array: Protek PSRDA3.3-4  
Number of Arrays: 4

**Note:** Surge protection provided by the Bel module is equivalent to that advertised in the Protek PRDA3.3-4 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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