



THE DATASHEET OF
S553-6500-D1-F



HIGH FREQUENCY MAGNETICS

T1/E1 Octal Transformer Modules



TM01110

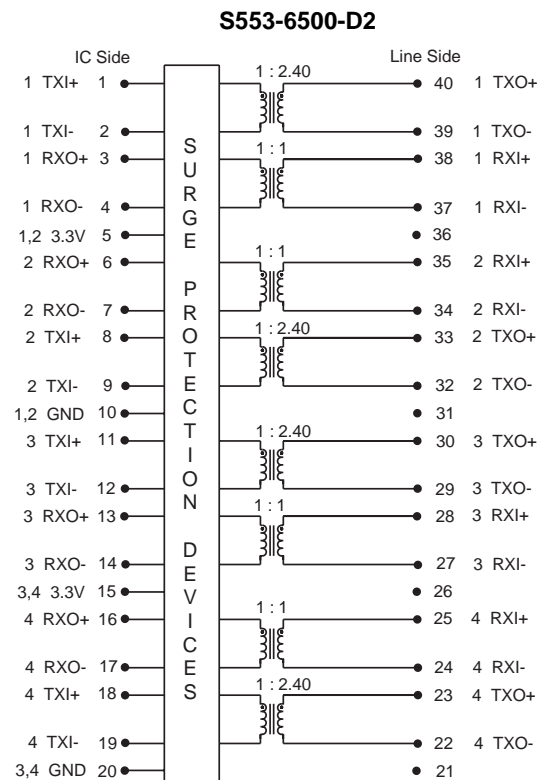
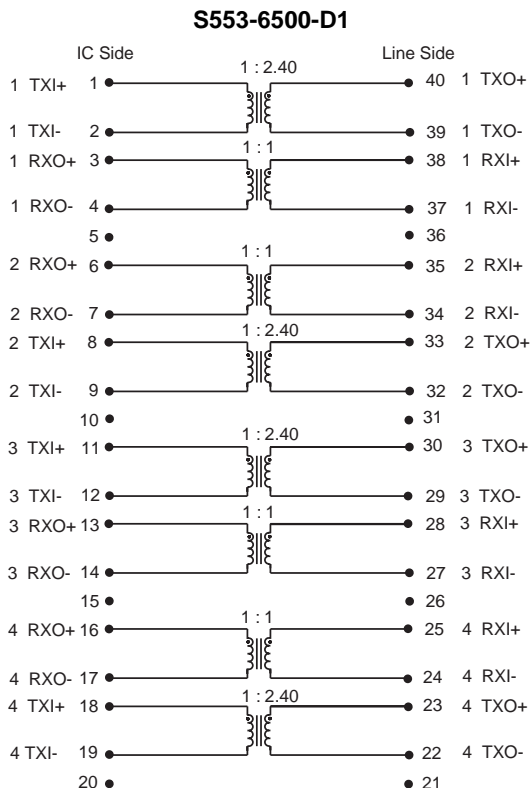
- Optimized for Infineon PEB 22504 and PEB 22554
- Eight transformers in one surface-mount package
- Two modules:
S553-6500-D1 with eight transformers
S553-6500-D2 with eight transformers and IC-side surge protection devices
- Meets ITU-T G.703 return loss from -40° to +85° C
- Interwinding breakdown 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 ¹ | | | |
|--------------|--------------------|-------|---------------------------------|-----|--------------------------------|-----|--------------|-----|-----------|-----|--------------------------|---|----|-------------------------|----|
| | 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

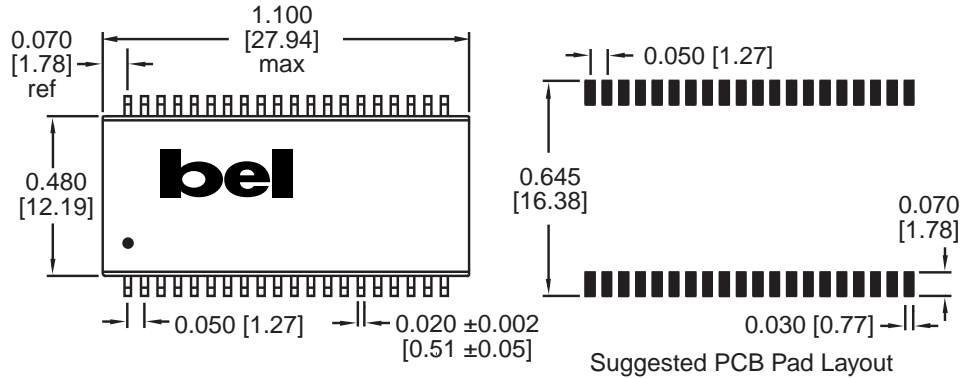


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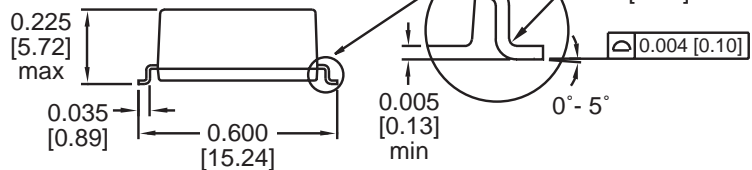
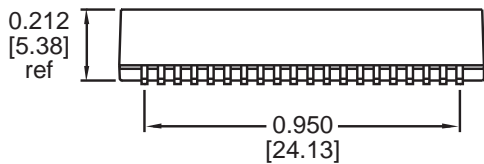
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MECHANICAL

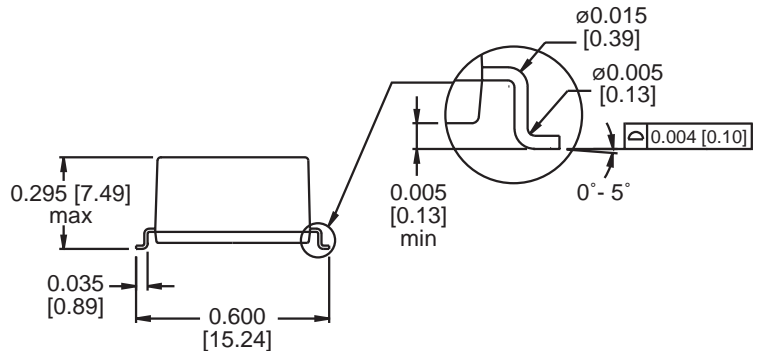
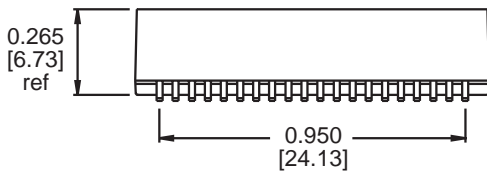
S553-6500-D1
S553-6500-D2



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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