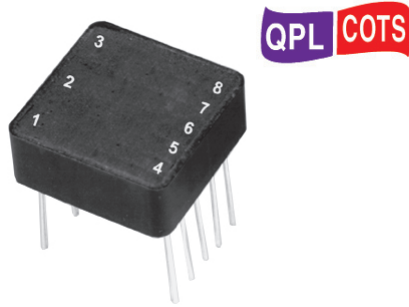


# MIL-STD-1553 TRANSFORMERS

COTS THT Non-QPL Interface Transformers



- ⚙️ Dual ratio, single interface (see Schematic)
- ⚙️ Moisture Sensitivity Level: 1
- ⚙️ For use in MIL-STD-1553 applications
- ⚙️ Standard Height: 0.250 in.
- ⚙️ Performance to MIL-PRF-21038 requirements
- ⚙️ Available Specifications: MIL-STD-1553B, MIL-STD-202, MIL-PRF-21038, ISO 9001

| Summary Performance Specifications |                   |
|------------------------------------|-------------------|
| Impedance                          | (see table below) |
| Droop                              | £ 20%             |
| Overshoot                          | ±1V MAX           |
| Common Mode Rejection (CMR)        | £ 45dB            |
| Frequency Range (no load)          | 75kHz to 1MHz     |
| Operating Temperature Range        | (see table above) |
| Weight                             | £ 5 grams         |
| Insulation Resistance (MIN)        | 10K MΩ @ 250Vdc   |
| DielectricWithstandingVoltage      | 100Vrms           |

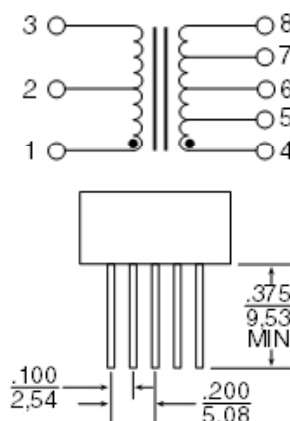
Choose 1 of 3 Operating Temp. Ranges :

| Operating Temp. | PN Prefix |
|-----------------|-----------|
| 0° to 70°C      | C         |
| -40° to +85°C   | N         |
| -55° to +125°C  | TQ        |

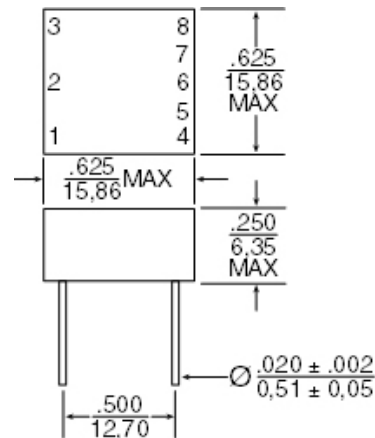
| Characteristics         |                        |                          |                        |                   |
|-------------------------|------------------------|--------------------------|------------------------|-------------------|
| Part Number             | Terminals              | Ratio (±3%)              | RDC (Ω MAX)            | Impedance (Ω MIN) |
| (X)1553-1 <sup>1</sup>  | 1-3 : 4-8<br>1-3 : 5-7 | 1CT:1CT<br>1CT:.707CT    | 1-3 = 3.0<br>4-8 = 3.0 | (1-3)<br>4,000    |
| (X)1553-2               | 1-3 : 4-8<br>1-3 : 5-7 | 1.4CT:1CT<br>2CT:1CT     | 1-3 = 3.5<br>4-8 = 3.0 | (1-3)<br>7,200    |
| (X)1553-3               | 1-3 : 4-8<br>1-3 : 5-7 | 1.25CT:1CT<br>1.66CT:1CT | 1-3 = 3.2<br>4-8 = 3.0 | (1-3)<br>4,000    |
| (X)1553-5 <sup>2</sup>  | 1-3 : 4-8<br>1-3 : 5-7 | 1CT:2.12CT<br>1CT:1.5CT  | 1-3 = 1.0<br>4-8 = 3.5 | (4-8)<br>4,000    |
| (X)1553-45 <sup>2</sup> | 1-3 : 4-8<br>1-3 : 5-7 | 1CT:2.5CT<br>1CT:1.79CT  | 1-3 = 1.0<br>4-8 = 3.5 | (4-8)<br>4,000    |

NOTE: 1. Refer to prefix table (above) to select temperature range. 2. Designed for transceivers utilizing a single supply voltage (+5V).

## Schematic



## Mechanical



Notes:

1. All dimensions: in inches.
2. Tolerances: .xx = +.008
3. All specifications and dimensions are subject to change without notice.



# MIL-STD-1553 TRANSFORMERS

COTS THT Non-QPL Interface Transformers



## MIL-PRF-21038/27 Inspection, Sampling, Testing

| Table 1 — Group A Inspection |               |   |                    |   |                    |
|------------------------------|---------------|---|--------------------|---|--------------------|
| Level "C"***                 |               | Level "M"                                       |                    | Level "T"                                       |                    |
| Tests                        | Sampling Plan | Tests   | Sampling Plan      | Tests   | Sampling Plan      |
| N/A                          | N/A           | Electrical Characteristics per MIL-PRF-21038/27 | Sample per Table 3 | Thermal Shock                                   | 100%               |
| N/A                          | N/A           | Visual and Mechanical Inspection                | Sample per Table 3 | Winding Continuity                              | 100%               |
| N/A                          | N/A           | N/A   | N/A                | Electrical Characteristics per MIL-PRF-21038/27 | 100%               |
| N/A                          | N/A           | N/A   | N/A                | Impedance                                       | Sample per Table 3 |
| N/A                          | N/A           | N/A   | N/A                | Visual and Mechanical Inspection                | Sample per Table 3 |

| Table 2 — Group B Inspection |               |                                 |                    |                                 |                    |
|------------------------------|---------------|---------------------------------|--------------------|---------------------------------|--------------------|
| Level "C"***                 |               | Level "M"                       |                    | Level "T"                       |                    |
| Tests                        | Sampling Plan | Tests                           | Sampling Plan      | Tests                           | Sampling Plan      |
| N/A                          | N/A           | Dielectric Withstanding Voltage | Sample per Table 3 | Dielectric Withstanding Voltage | Sample per Table 3 |
| N/A                          | N/A           | Insulation Resistance           | Sample per Table 3 | Insulation Resistance           | Sample per Table 3 |

| Table 3 — Sampling Plans for Group A and Group B Inspections |                               |         |
|--|-------------------------------|---------|
| Lot Size   | Group A, Group II Inspections | Group B |
| 1 to 5   | All                           | All     |
| 6 to 13  | All                           | 5       |
| 14 to 50   | 13                            | 5       |
| 51 to 90   | 13                            | 7       |
| 91 to 150  | 13                            | 11      |
| 151 to 280   | 20                            | 13      |
| 281 to 500   | 29                            | 16      |
| 501 to 1200  | 34                            | 19      |
| 1,201 to 3,200   | 42                            | 23      |
| 3,201 to 10,000  | 50                            | 29      |

\*\*\*NOTE: Parts ordered to Level C are certified to comply with MIL-PRF-21038 Level C, however testing is performed per manufacturer's internal requirements and sampling rates.

