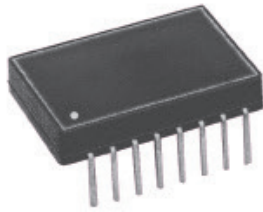


MIL-STD-1553 Transformers

Low Profile Dual THT non-QPL Interface Transformers
Ruggedized



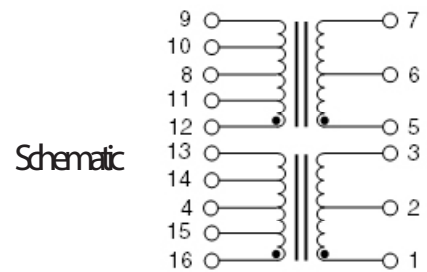
These non-QPL interface transformers are built and tested in ISO 9001 approved facilities. They conform to all electrical and physical parameters of MIL-PRF-21038/27. Choose one of three operating temperature ranges including 0° to +70°C, -40° to +85°C, or -55° to +125°C.

Operating Temp.	Prefix
0° to 70°C	DTLC
-40° to +85°C	DTLN
-55° to +125°C	DTL

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
Dielectric Withstanding Voltage	100Vrms

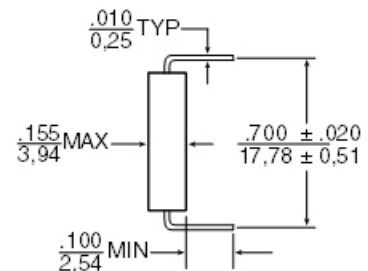
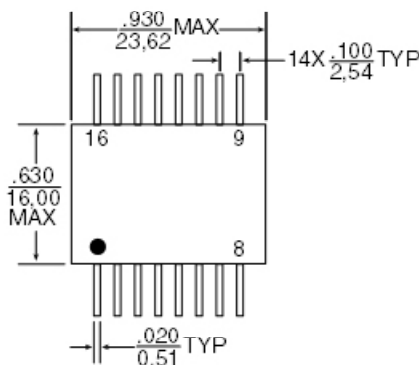
- Dual ratio, dual interface (see schematic)
- Through-the-board package
- Moisture Sensitivity Level: 1
- For use in MIL-STD-1553 applications
- Low profile, 0.155 inches height
- Performance to MIL-PRF-21038 requirements
- Built in ISO 9001 facility
- Applicable specifications:

- n MIL-STD-1553B
- n MIL-STD-202
- n MIL-PRF-21038
- n ISO 9001



Characteristics				
Part Number ¹	Terminals	Ratio (±3%)	RDC (Ω MAX)	Impedance (Ω MIN)
(XXXX)1553-1	1-3 : 16-13 / 5-7 : 12-9	1CT:1CT	1-3, 5-7 = 3.0	(1-3, 5-7)
	1-3 : 15-14 / 5-7 : 11-10	1CT:.707CT	16-13, 12-9 = 3.0	4,000
(XXXX)1553-2	1-3 : 16-13 / 5-7 : 12-9	1.4CT:1CT	1-3, 5-7 = 3.5	(1-3, 5-7)
	1-3 : 15-14 / 5-7 : 11-10	2CT:1CT	16-13, 12-9 = 3.0	7,200
(XXXX)1553-3	1-3 : 16-13 / 5-7 : 12-9	1.25CT:1CT	1-3, 5-7 = 3.2	(1-3, 5-7)
	1-3 : 15-14 / 5-7 : 11-10	1.66CT:1CT	16-13, 12-9 = 3.0	4,000
(XXXX)1553-5 ²	1-3 : 16-13 / 5-7 : 12-9	1CT:2.12CT	1-3, 5-7 = 1.0	(16-13, 12-9)
	1-3 : 15-14 / 5-7 : 11-10	1CT:1.5CT	16-13, 12-9 = 3.5	4,000
(XXXX)1553-45 ²	1-3 : 16-13 / 5-7 : 12-9	1CT:2.5CT	1-3, 5-7 = 1.0	(16-13, 12-9)
	1-3 : 15-14 / 5-7 : 11-10	1CT:1.79CT	16-13, 12-9 = 3.5	4,000

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



- Notes:
- All dimensions are in inches.
 - Tolerances: .xx = +.008
 - All specifications and dimensions are subject to change without notice.

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

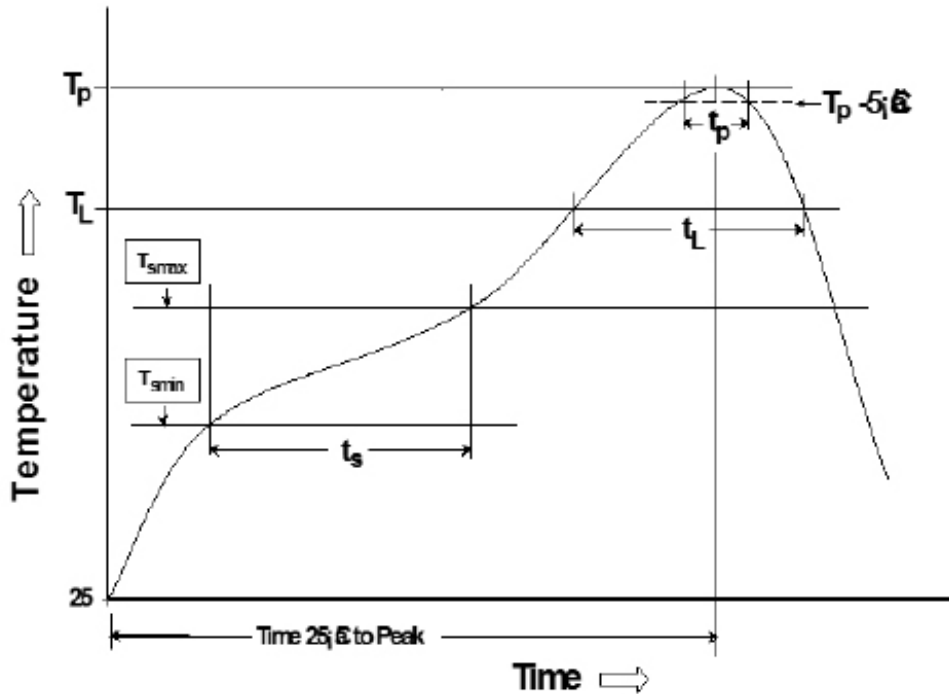
Table 1 — Group A Inspection					
Level "C"***		Level "M"		Level "T"	
Tests	Sampling Plan	Tests	Sampling Plan	Tests	Sampling Plan
N/A	N/A	Electrical Characteristics per MIL-PRF-21038/27	Sample per Table 3	Thermal Shock	100%
N/A	N/A	Visual and Mechanical Inspection	Sample per Table 3	Winding Continuity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

Transceiver Tin/Lead Recommended Reflow Profile (Based on J-STD-020D)



T _{SMIN} (°C)	T _{SMAX} (°C)	T _L (°C)	T _P (°C MAX)	t _s (s)	t _L (s)	t _p (s MAX)	Ramp-up rate (T _L to T _P)	Ramp-down rate (T _P to T _L)	Time 25°C to peak temperature (s MAX)
100	150	183	225	60-120	60-150	20	3°C/s MAX	6°C/s MAX	360

Notes:

1. All temperatures measured on the package leads.
2. Maximum times of reflow cycle: 2.

For More Information

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