# **MIL-STD-1553 TRANSFORMERS**

Low Profile Dual SMT Non-QPL Interface Transformers

Ruggedized



Summary Performance Specifications								
Droop	20% MAX							
Overshoot	±1V MAX							
Common Mode Rejection (CMR)	45dB MIN							
Frequency Range (no load)	75kHz - 1MHz							
Operating Temperature Range (based on Prefix)	Flat Pack         Gull-Wing           DFLC         DGLC         0°C to +70°C           DFLN         DGLN         -40°C to +85°C           DFL         DGL         -55°C to +125°C							
Weight	5 grams MAX							
Insulation Resistance (MIN)	10K MΩ @ 250Vdc							
Dielectric Withstanding Voltage	100Vrms							



These Non-QPL interface transformers are built and tested in ISO 9001 approved facilities.

- Dual ratio, dual interface
- Surface Mount, flat pack or gull-wing package
- Conform to all electrical and physical parameters of MIL-PRF-21038/27
- Moisture Sensitivity Level: 3
- Low profile, 0.155 inches height
- Applicable Specifications:

   MIL-STD-1553B

  - MIL-STD-202
  - MIL-PRF-21038 0
  - ISO 9001 0

	District Willistation of Volumes								
Characteristics									
Part		Ratio	RDC MAX	Impedance MIN					
Number	Terminals	(±3%)	(Ω)	(Ω)					
(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:0.707CT	16-13, 12-9 = 3.0	4,000					
(XXXX)1553-2	1-3:16-13 / 5-7:12-9	1.40CT: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*	1-3:16-13 / 5-7:12-9	1 CT: 2.12 CT	1-3, 5-7 = 1.0	(16-13, 12-9)					
	1-3:15-14 / 5-7:11-10	1 CT: 1.50 CT	16-13, 12-9 = 3.5	4,000					
(XXXX)1553-45*	1-3:16-13 / 5-7:12-9	1 CT: 2.50CT	1-3, 5-7 = 1.0	(16-13, 12-9)					
	1-3:15-14 / 5-7:11-10	1 CT: 1.79CT	16-13, 12-9 = 3.5	4,000					

### NOTES:

- 1. Refer to the Summary Performance Specifications Table above to select the prefix for your desired Operating Temperature Range. Replace (XXXX) from the part number in the table with the desired prefix: DFLC, DFLN, DFL, DGLC, DGLN, DGL.
- Designed for transceivers utilizing a single supply voltage (+5V).

#### **Electrical Schematics** Mechanicals Dimensions: inch [mm] Tolerance (unless otherwise specified): ±0.010 [0.25] Flat Pack 0.630 [16.0] MAX 0.020 [0.51] TYP 0.200 [5.08] MIN **O**14 0.155 [3.94] MAX 3**O**-**O**13 **O**12 0.930 [23.62] MAX Gull-Wing $O_{11}$ 0.010 [0.25] TYP O8 **O**10 0.070±0.015 [1.78±0.380] \_\_0.004 [0.10] MIN 0.155 [3.94] MAX 0.230±0.030 [5.84±0.760] 14X 0.100 [2.54]

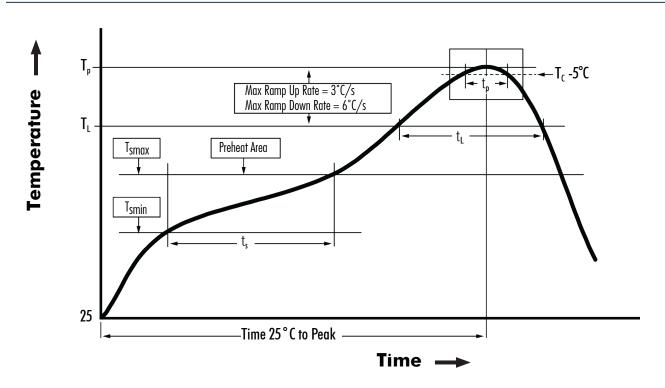


# **MIL-STD-1553 TRANSFORMERS**

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



T <sub>smin</sub> (°C)	T <sub>smax</sub> (°C)	T <sub>ւ</sub> (°C)	T <sub>P</sub> (°C MAX)	† <sub>s</sub> (s)	† <sub>L</sub> (s)	t <sub>p</sub> (s MAX)	Ramp-up rate (T <sub>L</sub> to T <sub>P</sub> )	Ramp-down rate (T <sub>P</sub> to T <sub>L</sub> )	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.
- $2. \ \text{Maximum times of reflow cycle: } 2 \\$



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