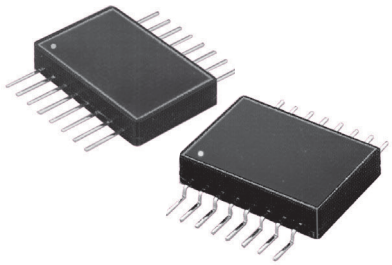
MIL-STD-1553 Transformers

Low Profile SMT Dual non-QPL Interface Transformers

Pulse Electronics
Military & Aerospace
Specialty Components

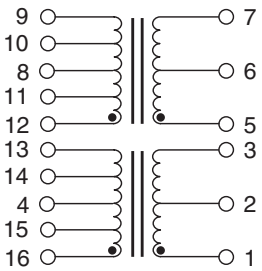


These non-QPL interface transformers are built and tested in ISO 9001 approved facilities. They conform to all electrical and physical parameters of MIL-PRF-21038/27. Choose one of three operating temperature ranges including 0° to +70°C, -40° to +85°C, or -55° to +125°C.

Operating Temperature	Flat Pack Prefix	Gull Wing Prefix
0° to 70°C	DFLC	DGLC
-40° to +85°C	DFLN	DGLN
-55° to +125°C	DFL	DGL

- Dual ratio, dual interface (see schematic)
- Surface Mount, flat pack or gull wing package
- MSL: 3
- 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:
  - MIL-STD-1553B
  - MIL-STD-202
  - MIL-PRF-21038
  - ISO 9001

Schematic



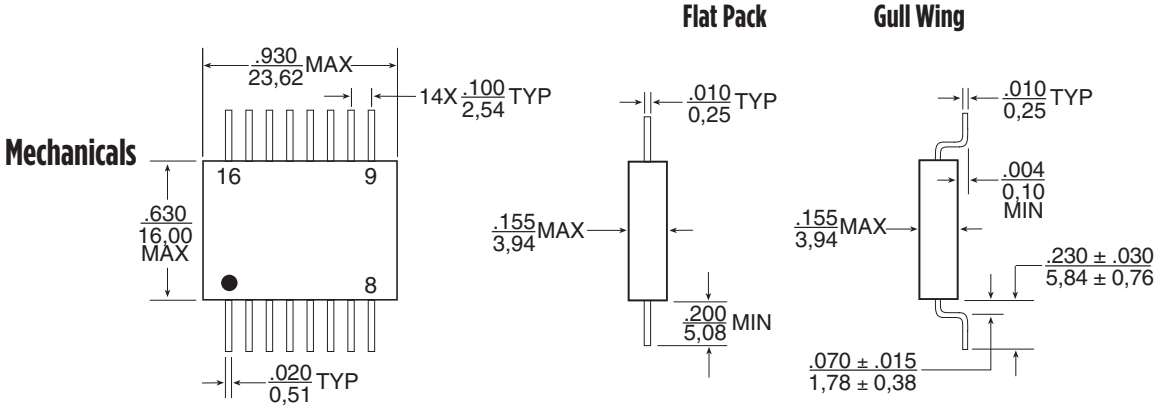
Summary Performance Specifications	
Impedance	(see table below)
Droop	□ 20%
Overshoot	31V MAX
Common Mode Rejection (CMR)	□ 45dB
Frequency Range (no load)	75kHz to 1MHz
Operating Temperature Range	(see table above)
Weight	□ 5 grams
Insualtion Resistance (MIN)	10K MΩ @ 250Vdc
Dielectric Withstanding Voltage	100Vrms

Characteristics

Part Number [1]	Termimals	Ratio (33%)	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 16-13, 12-9 = 3.0	(1-3, 5-7) 4,000
	1-3 : 15-14 / 5-7 : 11-10	1CT:.707CT		
(XXXX)1553-2	1-3 : 16-13 / 5-7 : 12-9	1.4CT:1CT	1-3, 5-7 = 3.5 16-13, 12-9 = 3.0	(1-3, 5-7) 7,200
	1-3 : 15-14 / 5-7 : 11-10	2CT:1CT		
(XXXX)1553-3	1-3 : 16-13 / 5-7 : 12-9	1.25CT:1CT	1-3, 5-7 = 3.2 16-13, 12-9 = 3.0	(1-3, 5-7) 4,000
	1-3 : 15-14 / 5-7 : 11-10	1.66CT:1CT		
(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 = 3.5	(16-13, 12-9) 4,000
	1-3 : 15-14 / 5-7 : 11-10	1CT:1.5CT		
(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 = 3.5	(16-13, 12-9) 4,000
	1-3 : 15-14 / 5-7 : 11-10	1CT:1.79CT		

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

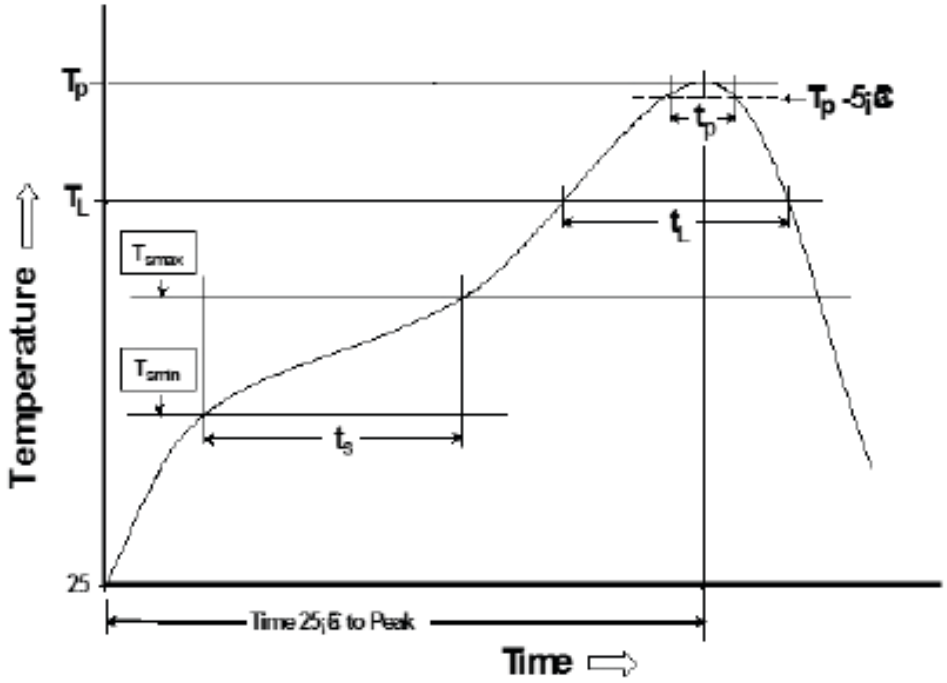
Mechanicals



Notes:

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

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	235	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.

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