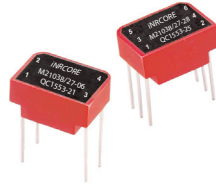


# MIL-STD-1553 TRANSFORMERS

Single Ratio THT QPL Pulse Transformers



- ⊗ Certified QPL MIL-STD-1553 applications
- ⊗ Designed, built and tested to MIL-PRF-21038
- ⊗ Product Levels:
  - ⊗ Level C: for high reliability commercial/industrial applications
  - ⊗ Level M: for general purpose military applications
  - ⊗ Level T: for high reliability critical military applications
- ⊗ Two Packages Available:
  - ⊗ Package C: 4-lead (no center tap)
  - ⊗ Package D: 6-lead (center tap)
- ⊗ Moisture Sensitivity Level: 1
- ⊗ Applicable Standards:
  - ⊗ MIL-STD-1553B
  - ⊗ MIL-PRF-21038
  - ⊗ MIL-STD-202

## Summary Performance Specifications

Drop	20% MAX
Overshoot	±1V MAX
Common Mode Rejection (CMR)	45dB MIN
Frequency Range (no load)	75kHz - 1MHz
Operating and Storage Temperature Range	-55°C to +130°C
Weight	5 grams MAX
Insulation Resistance (MIN)	10K MΩ @ 250Vdc
Dielectric Withstanding Voltage	100Vrms

## Electrical Specifications @ 25°C

Part Number	Level	Military Designation No.	Package	Height MAX	Terminals	Ratio (±3%)	RDC MAX (Ω)	Impedance MIN <sup>1</sup> (Ω)
				IN. [mm]				
QC1553-20	C	M21038/27-05C	C	0.250 [6.35]	1-2-4-3	1:1.41	1-2 = 2.20 4-3 = 2.70	(4-3) 3,000
Q1553-20	M	M21038/27-05						
QT1553-20	T	M21038/27-05T						
QC1553-21	C	M21038/27-06C	D	0.250 [6.35]	1-5-6-2	1CT:1CT	1-5 = 2.50 6-2 = 2.80	(6-2) 3,000
Q1553-21	M	M21038/27-06						
QT1553-21	T	M21038/27-06T						
QC1553-22	C	M21038/27-07C	D	0.250 [6.35]	1-5-6-2	1CT:1.41CT	1-5 = 2.20 6-2 = 2.70	(6-2) 3,000
Q1553-22	M	M21038/27-07						
QT1553-22	T	M21038/27-07T						
QC1553-23	C	M21038/27-08C	D	0.250 [6.35]	1-5-6-2	1CT:1.66CT	1-5 = 1.50 6-2 = 2.40	(6-2) 3,000
Q1553-23	M	M21038/27-08						
QT1553-23	T	M21038/27-08T						
QC1553-24	C	M21038/27-09C	D	0.250 [6.35]	1-5-6-2	1CT:2CT	1-5 = 1.30 6-2 = 2.60	(6-2) 3,000
Q1553-24	M	M21038/27-09						
QT1553-24	T	M21038/27-09T						
QC1553-25*	C	M21038/27-28C	D	0.250 [6.35]	1-5-6-2	1CT:1.50CT	1-3 = 0.90 6-2 = 2.50	(6-2) 3,000
Q1553-25*	M	M21038/27-28						
QT1553-25*	T	M21038/27-28T						
QC1553-51*	C	M21038/27-29C	D	0.250 [6.35]	1-5-6-2	1CT:1.79CT	1-5 = 0.90 6-2 = 2.50	(6-2) 3,000
Q1553-51*	M	M21038/27-29						
QT1553-51*	T	M21038/27-29T						
QC1553-52*	C	M21038/27-30C	D	0.250 [6.35]	1-5-6-2	1CT:2.50CT	1-5 = 1.00 6-2 = 2.80	(6-2) 3,000
Q1553-52*	M	M21038/27-30						
QT1553-52*	T	M21038/27-30T						

\* Designed for transceivers utilizing a single supply voltage (+5V).

<sup>1</sup> Impedance is tested at 75 kHz and at 1 MHz at -55°C ±2°C; +25°C ± 2°C; and +130°C ±2°C.

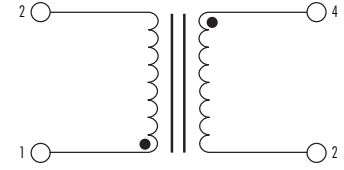
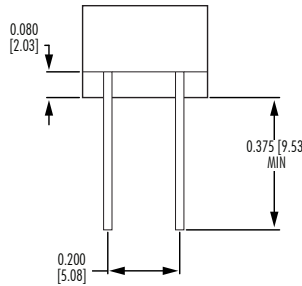
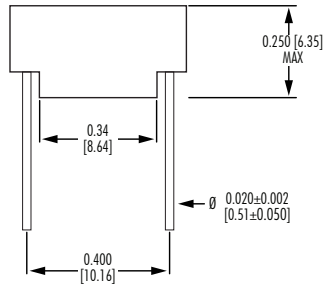
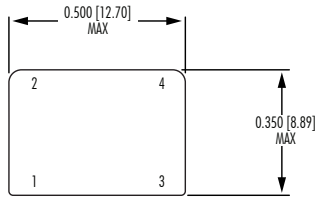


## Mechanicals

## Electrical Schematics

### Package C

Dimensions: inch [mm]  
Tolerance (unless otherwise specified): ±0.010 [0.25]

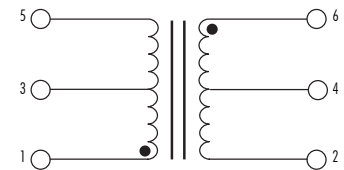
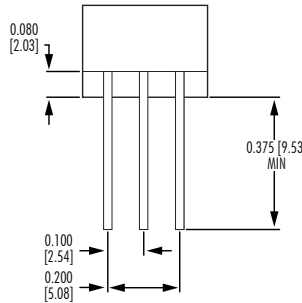
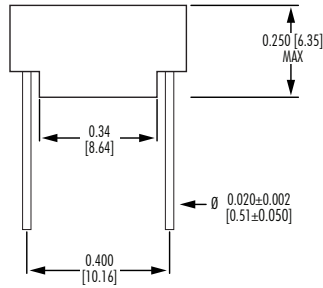
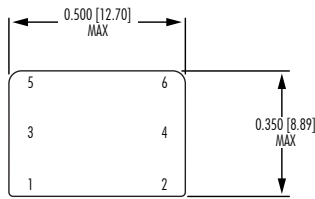


## Mechanicals

## Electrical Schematics

### Package D

Dimensions: inch [mm]  
Tolerance (unless otherwise specified): ±0.010 [0.25]



## 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 & 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 & 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 1,200	34	19
1,201 to 3,200	42	23
3,201 to 10,000	50	29

\*\* 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.

