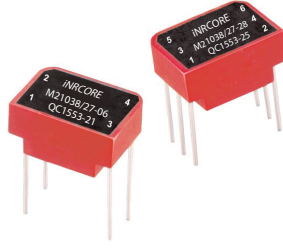


MIL-STD-1553 TRANSFORMERS

Single Ratio THT QPL Pulse Transformers



- ⊗ Qualified QPL MIL-STD-1553 applications
- ⊗ Dual ratio in a single package
- ⊗ Designed, built and tested to MIL-PRF-21038/27
- ⊗ 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
 - ⊗ Package D: 6-lead (center tap)
- ⊗ Moisture Sensitivity Level: 1
- ⊗ Applicable Specifications:
 - ⊗ MIL-STD-1553B
 - ⊗ MIL-STD-202
 - ⊗ MIL-PRF-21038
 - ⊗ ISO 9001

Summary Performance Specifications

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

Characteristics

Part Number	Line	Level	Military Designation No.	Package	Height MAX	Terminals	Ratio (±3%)	RDC MAX (Ω)	Impedance MIN (Ω)
					IN. [mm]				
QC1553-20	1	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	2	M	M21038/27-05						
QT1553-20	3	T	M21038/27-05T						
QC1553-21	4	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	5	M	M21038/27-06						
QT1553-21	6	T	M21038/27-06T						
QC1553-22	7	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	8	M	M21038/27-07						
QT1553-22	9	T	M21038/27-07T						
QC1553-23	10	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	11	M	M21038/27-08						
QT1553-23	12	T	M21038/27-08T						
QC1553-24	13	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	14	M	M21038/27-09						
QT1553-24	15	T	M21038/27-09T						
QC1553-25*	16	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*	17	M	M21038/27-28						
QT1553-25*	18	T	M21038/27-28T						
QC1553-51*	19	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*	20	M	M21038/27-29						
QT1553-51*	21	T	M21038/27-29T						
QC1553-52*	22	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*	23	M	M21038/27-30						
QT1553-52*	24	T	M21038/27-30T						

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



Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2020. iNRCORE, LLC. All rights reserved.

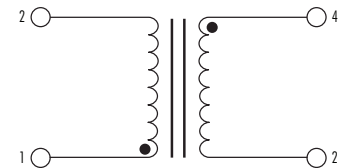
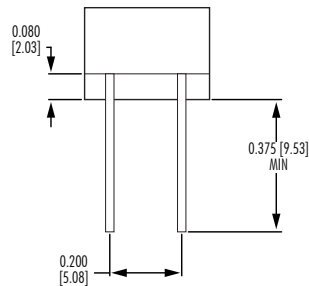
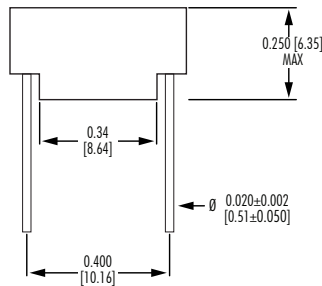
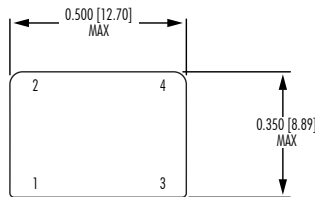
M223.E (10/21)

Mechanicals

Electrical Schematics

Package C

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

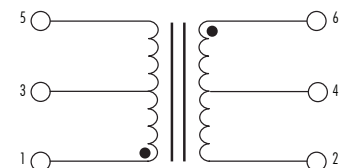
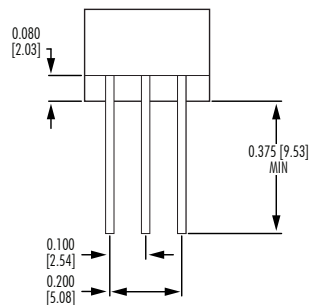
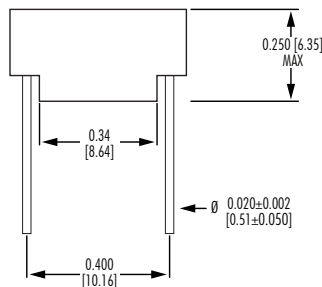
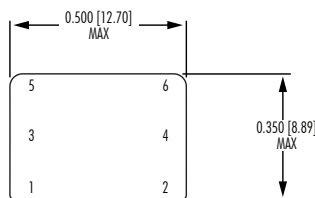


Mechanicals

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.



iNRCORE, LLC

311 Sinclair Road, Bristol, PA 19007-6812 USA

Tel: +1.215.781.6400 Fax: +1.215.781.6430

www.iNRCORE.com

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2020. iNRCORE, LLC. All rights reserved.

M223.E (10/21)