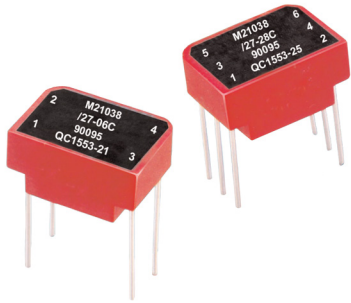
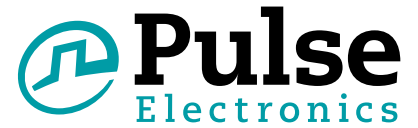


MIL-STD-1553 Transformers

Single Ratio THT QPL Pulse Transformers



- ☑ Qualified for use in QPL MIL-STD-1553 applications
- ☑ Single ratio packages (see Schematics)
- ☑ MSL: 1
- ☑ Designed, built, and tested to MIL-PRF-21038 Levels* C, M, and T
- ☑ Package C is 4-lead; package D is 6-lead (center tap)
- ☑ Built in ISO 9001 facility
- ☑ Applicable specifications

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

- * ■ **Level C** - for high reliability commercial/industrial applications
- **Level M** - for general purpose military applications
- **Level T** - for high reliability critical military applications

Summary Performance Specifications

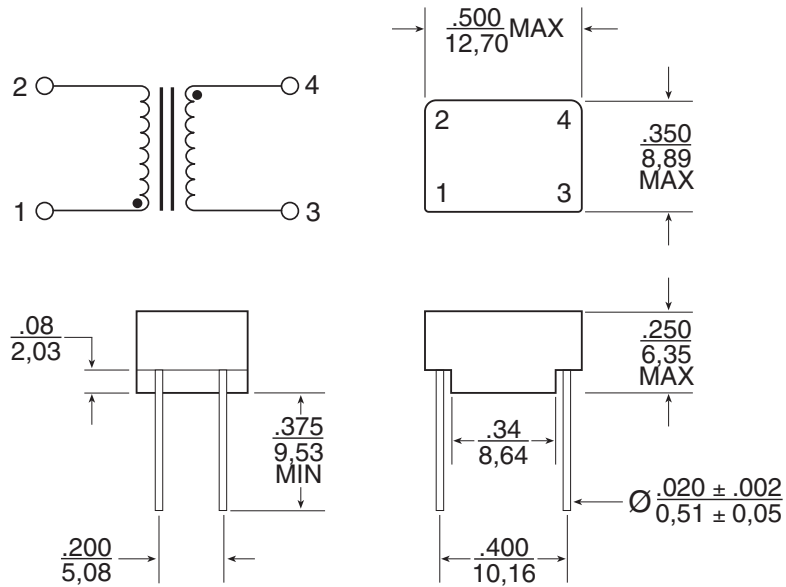
Impedance	(see table below)
Droop	≤ 20%
Overshoot	±IV MAX
Common Mode Rejection (CMR)	≥ 45dB
Frequency Range (no load)	75kHz to 1MHz
Operating Temperature Range	-55°C to 130°C
Weight	≤ 5 grams
Insulation Resistance (MIN)	10K MΩ @ 250Vdc
Dielectric Withstanding Voltage	100Vrms

Characteristics

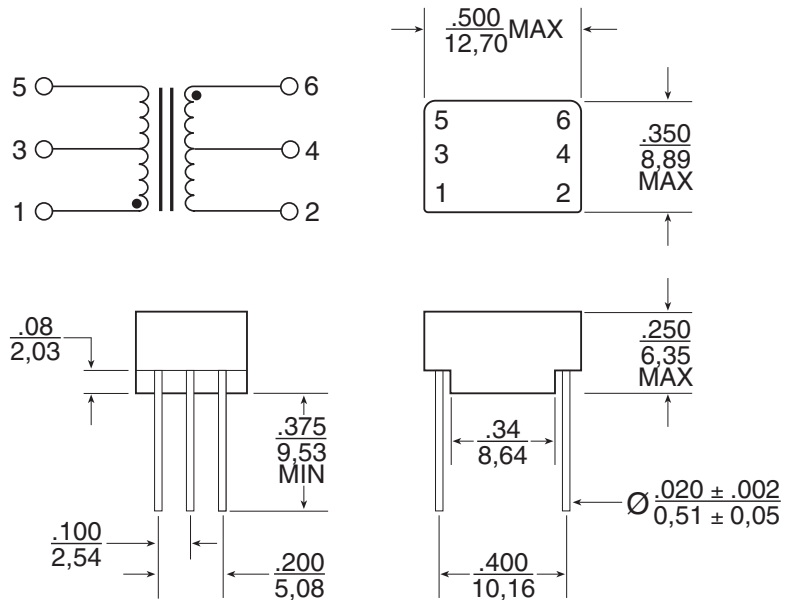
Line	Level	Military Designation No.	Pulse Part No.	Package	Height (in. MAX)	Terminals	Ratio (±3%)	RDC (Ω MAX)	Impedance (Ω MIN)
1	C	M21038/27-05C	QC1553-20	C	.250	1-2:4-3	1:1.41	1-2 2.2 4-3 2.7	(4-3) 3,000
2	M	M21038/27-05	Q1553-20						
3	T	M21038/27-05T	QT1553-20						
4	C	M21038/27-06C	QC1553-21	D	.250	1-5:6.2	1CT:1CT	1-5 2.5 6-2 2.8	(6-2) 3,000
5	M	M21038/27-06	Q1553-21						
6	T	M21038/27-06T	QT1553-21						
7	C	M21038/27-07C	QC1553-22	D	.250	1-5:6.2	1CT:1.41CT	1-5 2.2 6-2 2.7	(6-2) 3,000
8	M	M21038/27-07	Q1553-22						
9	T	M21038/27-07T	QT1553-22						
10	C	M21038/27-08C	QC1553-23	D	.250	1-5:6.2	1CT:1.66CT	1-5 1.5 6-2 2.4	(6-2) 3,000
11	M	M21038/27-08	Q1553-23						
12	T	M21038/27-08T	QT1553-23						
13	C	M21038/27-09C	QC1553-24	D	.250	1-5:6.2	1CT:2CT	1-5 1.3 6-2 2.6	(6-2) 3,000
14	M	M21038/27-09	Q1553-24						
15	T	M21038/27-09T	QT1553-24						
16	C	M21038/27-28C	QC1553-25*	D	.250	1-5:6.2	1CT:1.5CT	1-3 0.90 6-2 2.5	(6-2) 3,000
17	M	M21038/27-28	Q1553-25*						
18	T	M21038/27-28T	QT1553-25*						
19	C	M21038/27-29C	QC1553-51*	D	.250	1-5:6.2	1CT:1.79CT	1-5 0.90 6-2 2.5	(6-2) 3,000
20	M	M21038/27-29	Q1553-51*						
21	T	M21038/27-29T	QT1553-51*						
22	C	M21038/27-30C	QC1553-52*	D	.250	1-5:6.2	1CT:2.5CT	1-5 1.0 6-2 2.8	(6-2) 3,000
23	M	M21038/27-30	Q1553-52*						
24	T	M21038/27-30T	QT1553-52*						

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

Package C



Package D



Notes:

1. All dimensions are in inches.
2. Tolerances: .xx = +.010, .xxx = +.008
3. 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.

For More Information

Pulse North America Headquarters
 Two Pearl Buck Court
 Bristol, PA 19007
 U.S.A.

Pulse Europe
 Zeppelinstrasse 15
 71083 Herrenberg
 Germany

Pulse China Headquarters
 B402, Shenzhen Academy of
 Aerospace Technology Bldg.
 10th Kejinan Road
 High-Tech Zone
 Nanshan District
 Shenzhen, PR China 518057
 Tel: 86 755 33966678
 Fax: 86 755 33966700

Pulse North China
 Room 2704/2705
 Super Ocean Finance Ctr.
 2067 Yan An Road West
 Shanghai 200336
 China

Tel: 86 21 62787060
 Fax: 86 2162786973

Pulse South Asia
 135 Joo Seng Road
 #03-02
 PM Industrial Bldg.
 Singapore 368363

Tel: 65 6287 8998
 Fax: 65 6287 8998

Pulse North Asia
 3F No. 198, Zhongyuan Road
 Zhongli City
 Taoyuan County (32068)
 Taiwan

Tel: 886 3 4356768
 Fax: 886 3 4356823

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