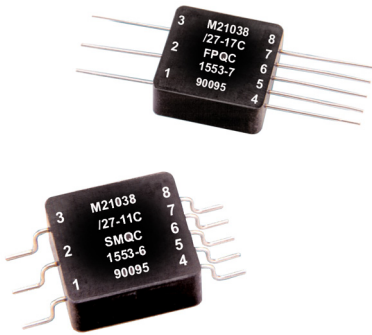


MIL-STD-1553 Transformers

Dual Ratio SMT QPL Pulse Transformers



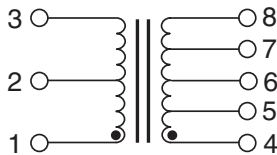
- Qualified for use in QPL MIL-STD-1553 applications
- Dual ratio in a single package (see Schematic)
- MSL: 3
- Designed, built, and tested to MIL-PRF-21038 Levels* C, M, and T
- Two packages available: Package B has gull-wing leads, and Package F is flat pack
- Built in ISO 9001 facility
- Applicable 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

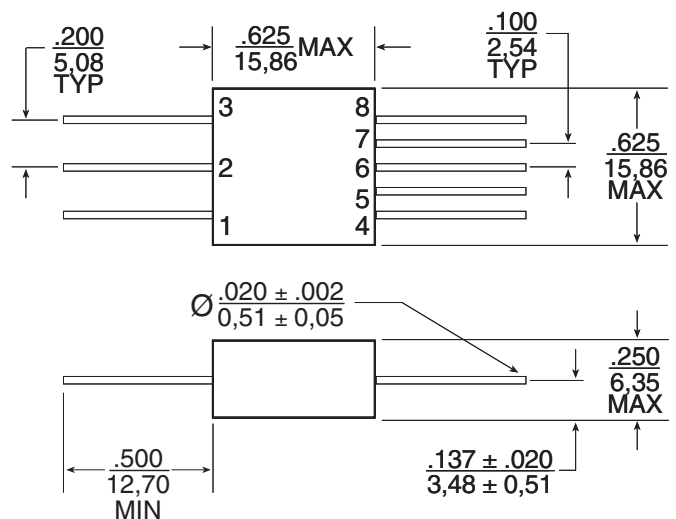
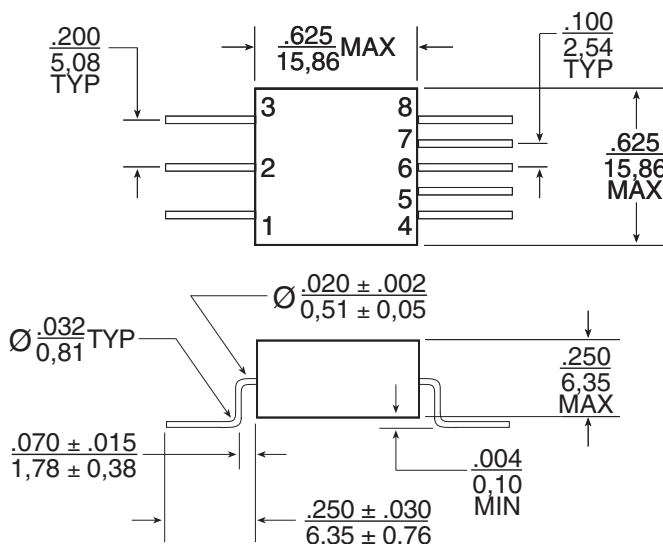
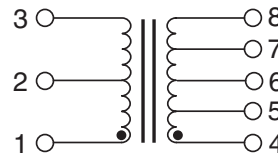
Summary Performance Specifications	
Impedance	(see next page)
Droop	20%
Overshoot	±IV MAX
Common Mode Rejection (CMR)	45dB
Frequency Range (no load)	75kHz to 1MHz
Operating Temperature Range	-55°C to 130°C
Weight	5 grams
Insulation Resistance (MIN)	10K MΩ @ 250Vdc
Dielectric Withstanding Voltage	100Vrms

Package B



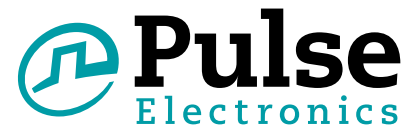
- Notes:**
1. All dimensions are in inches.
 2. Tolerances: .xx = +.008
 3. All specifications and dimensions are subject to change without notice.

Package F



MIL-STD-1553 Transformers

Dual Ratio SMT QPL Pulse Transformers



Characteristics									
Line	Level	Military Designation No.	Pulse Part No.	Package	Height (in. MAX)	Terminals	Ratio (±3%)	RDC (Ω MAX)	Impedance (Ω MIN)
1	C	M21038/27-11C	SMQC1553-6	B	.250	1-3:4-8	1CT:1CT	1-3 3.0	(1-3)
2	M	M21038/27-11	SMQ1553-6			1-3:5-7	1CT:.707CT	4-8 3.0	4,000
3	T	M21038/27-11T	SMQT1553-6						
4	C	M21038/27-12C	SMQC1553-7	B	.250	1-3:4-8	1.4CT:1CT	1-3 3.5	(1-3)
5	M	M21038/27-12	SMQ1553-7			1-3:5-7	2CT:1CT	4-8 3.0	7,200
6	T	M21038/27-12T	SMQT1553-7						
7	C	M21038/27-13C	SMQC1553-8	B	.250	1-3:4-8	1.25CT:1CT	1-3 3.2	(1-3)
8	M	M21038/27-13	SMQ1553-8			1-3:5-7	1.66CT:1CT	4-8 3.0	4,000
9	T	M21038/27-13T	SMQT1553-8						
10	C	M21038/27-15C	SMQC1553-10*	B	.250	1-3:4-8	1CT:2.12CT	1-3 1.0	(4-8)
11	M	M21038/27-15	SMQ1553-10*			1-3:5-7	1CT:1.5CT	4-8 3.5	4,000
12	T	M21038/27-15T	SMQT1553-10*						
13	C	M21038/27-16C	FPQC1553-6	F	.250	1-3:4-8	1CT:1CT	1-3 3.0	(1-3)
14	M	M21038/27-16	FPQ1553-6			1-3:5-7	1CT:.707CT	4-8 3.0	4,000
15	T	M21038/27-16T	FPQT1553-6						
16	C	M21038/27-17C	FPQC1553-7	F	.250	1-3:4-8	1.4CT:1CT	1-3 3.5	(1-3)
17	M	M21038/27-17	FPQ1553-7			1-3:5-7	2CT:1CT	4-8 3.0	7,200
18	T	M21038/27-17T	FPQT1553-7						
19	C	M21038/27-18C	FPQC1553-8	F	.250	1-3:4-8	1.25CT:1CT	1-3 3.2	(1-3)
20	M	M21038/27-18	FPQ1553-8			1-3:5-7	1.66CT:1CT	4-8 3.0	4,000
21	T	M21038/27-18T	FPQT1553-8						
22	C	M21038/27-20C	FPQC1553-10*	F	.250	1-3:4-8	1CT:2.12CT	1-3 1.0	(4-8)
23	M	M21038/27-20	FPQ1553-10*			1-3:5-7	1CT:1.5CT	4-8 3.5	4,000
24	T	M21038/27-20T	FPQT1553-10*						
25	C	M21038/27-27C	SMQC1553-45*	B	.250	1-3:4-8	1CT:2.50CT	1-3 1.0	(4-8)
26	M	M21038/27-27	SMQ1553-45*			1-3:5-7	1CT:1.79CT	4-8 3.5	4,000
27	T	M21038/27-27T	SMQT1553-45*						
28	C	M21038/27-31C	FPQC1553-45*	F	.250	1-3:4-8	1CT:2.50CT	1-3 1.0	(4-8)
29	M	M21038/27-31	FPQ1553-45*			1-3:5-7	1CT:1.79CT	4-8 3.5	4,000
30	T	M21038/27-31T	FPQT1553-45*						

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

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 Kejian 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 21 62786973

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

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

Tel: 215 781 6400
Fax: 215 781 6403

Tel: 49 7032 7806 0
Fax: 49 7032 7806 12

Tel: 65 6287 8998
Fax: 65 6287 8998

Tel: 886 3 4356768
Fax: 886 3 4356823

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