

**Miniature Threaded Pi Circuit Filters**

**TPT**

### Ordering Information

e.g. **TPT270A**

Blank - Unified thread  
M - Metric thread

Blank - No special conditioning  
Bu - Standard burn in  
Bx - Burn in to Cust. req.

Blank - Tin finish  
G - Gold  
S - Silver

Blank - Wavy washer and nut  
T - Toothed washer and nut  
N - No hardware

**Environmental Classification** 55/125/56

For Test Conditions see page e63

Tangent of loss angle (Tan δ)	0.04 max.
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### Case Dimensions

All dimensions in millimetres. Limits unless otherwise stated:  
One decimal place ± 0.2; two decimal places ± 0.05.

Plain wire only of minimum stated length on longer lead variants.

For plain wire (no head or forming) on short lead length style, replace first digit 0 by 5, e.g. TPT089A — TPT589A.

### Circuit Diagram

### Insulation Resistance

Rated Voltage at 85°C (V d.c.)	Test Voltage (V d.c.)	I.R.
< 100	10 ± 1	> 5GΩ
≥ 100 to < 500	100 ± 15	
≥ 500	500 ± 50	

Part No.	Mounting Style	Max. panel thickness (mm)
TPT_89_	A or B	2.2
TPT_50A & D	A or B	3.8
TPT_50B & C	A only	N/A
TPT_70_	A or B	3.8
TPT_01_	A or B	3.8
TPT080_	A or A	4.8
TPT_02_	A or B	4.8
TPT_21_	A or B	3.8
TPT114C	A only	N/A

**Characteristics**

Case Type	Part Number	Min Cap. (pF)	Rated Voltage (V d.c.)		Current d.c. (A)	Minimum No Load Insertion Loss (dB)																		
			-55°C to 85°C	-55°C to 125°C		10 MHz	100 MHz	1 GHz	10 GHz															
<table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr><td>± 0.75</td><td>089</td><td>090</td><td>118</td></tr> <tr><td>L3</td><td>7.4</td><td>29</td><td></td></tr> <tr><td>L4</td><td>24.1</td><td>31</td><td></td></tr> </table>	± 0.75	089	090	118	L3	7.4	29		L4	24.1	31		TPT089A	1500	350	210	10	5	40	60	60			
	± 0.75	089	090	118																				
	L3	7.4	29																					
	L4	24.1	31																					
TPT189A	1500	350	210	10	5	40	60	60																
TPT089B	3000	200	120	10	8	50	70	70																
TPT189B	3000	200	120	10	8	50	70	70																
<table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr><td>± 0.75</td><td>050</td><td>150</td><td></td></tr> <tr><td>L3</td><td>7.9</td><td>28</td><td></td></tr> <tr><td>L4</td><td>22.6</td><td>32</td><td></td></tr> </table>	± 0.75	050	150		L3	7.9	28		L4	22.6	32		TPT050A	1500	350	210	10	5	45	65	60			
	± 0.75	050	150																					
	L3	7.9	28																					
	L4	22.6	32																					
	TPT150A	1500	350	210	10	5	45	65	60															
TPT050D	4000	200	120	10	10	50	65	70																
TPT150D	4000	200	120	10	10	50	65	70																
TPT150E	5000	200	120	10	20	65	70	70																
TPT050N	50	350	210	10	-	3	20	20																
<table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr><td>± 0.4</td><td>050</td><td>150</td><td>250</td><td>350</td></tr> <tr><td>L3</td><td>4.1</td><td>10.5</td><td>27.0</td><td>7.5</td></tr> <tr><td>L4</td><td>6.0</td><td>11.5</td><td>29.0</td><td>8.5</td></tr> </table>	± 0.4	050	150	250	350	L3	4.1	10.5	27.0	7.5	L4	6.0	11.5	29.0	8.5	TPT050B	1500	200	120	15	5	40	60	60
	± 0.4	050	150	250	350																			
	L3	4.1	10.5	27.0	7.5																			
	L4	6.0	11.5	29.0	8.5																			
	TPT150B	1500	200	120	15	5	40	60	60															
	TPT250B	1500	200	120	15	5	40	60	60															
	TPT350B	1500	200	120	15	5	40	60	60															
	TPT050C	500	350	210	15	—	15	55	60															
TPT150C	500	350	210	15	—	15	55	60																
TPT250C	500	350	210	15	—	15	55	60																
TPT350C	500	350	210	15	—	15	55	60																

Case Type	Part Number	Rated Voltage (V d.c.)		Current d.c. (A)	Minimum No Load Insertion Loss (dB)																						
		Min Cap. (pF)	-55°C to 85°C		-55°C to 125°C	10 MHz	100 MHz	1 GHz	10 GHz																		
<table border="1"> <tr><td>± 0.75</td><td>070</td><td>270</td></tr> <tr><td>L3</td><td>8.7</td><td>30</td></tr> <tr><td>L4</td><td>23.4</td><td>34</td></tr> </table>	± 0.75	070	270	L3	8.7	30	L4	23.4	34	TPT070A	1500	500	300	10	5	45	70	70									
	± 0.75	070	270																								
	L3	8.7	30																								
	L4	23.4	34																								
	TPT070C	1500	500	300	10	5	45	70	70																		
	TPT270A	1500	500	300	10	5	45	70	70																		
	TPT270C	1500	500	300	10	5	45	70	70																		
	TPT075A	1500	350	200	10	5	45	70	70																		
	TPT070B	5000	300	180	10	20	65	70	70																		
	TPT070D	5000	300	180	10	20	65	70	70																		
	TPT270B	5000	300	180	10	20	65	70	70																		
	TPT270D	5000	300	180	10	20	65	70	70																		
TPT070EM	680	350	200	10	—	—	45	45																			
<table border="1"> <tr><td>± 0.75</td><td>001</td><td>101</td></tr> <tr><td>L3</td><td>9.1</td><td>30</td></tr> <tr><td>L4</td><td>11.5</td><td>33</td></tr> </table>	± 0.75	001	101	L3	9.1	30	L4	11.5	33	TPT001A	1500	500	300	10	5	45	70	70									
	± 0.75	001	101																								
	L3	9.1	30																								
	L4	11.5	33																								
	TPT001B	1500	500	300	10	5	45	70	70																		
	TPT101A	1500	500	300	10	5	45	70	70																		
TPT101B	1500	500	300	10	5	45	70	70																			
TPT001C	5500	300	180	10	20	68	70	70																			
TPT101C	5500	300	180	10	20	68	70	70																			
	TPT080A	1500	2500	—	25	5	50	50	50																		
	TPT080B	3000	1000	—	25	8	60	65	65																		
<table border="1"> <tr><th>Part no.</th><th colspan="2">Thread</th></tr> <tr><td>A &amp; C</td><td>5/16-32 UNEF 2A</td><td>M8 x 1.0</td></tr> <tr><td>B &amp; D</td><td>5/16-24 UNF 2A</td><td></td></tr> </table> <table border="1"> <tr><td>± 0.75</td><td>002</td><td>102*</td></tr> <tr><td>L3</td><td>14.3</td><td>32</td></tr> <tr><td>L4</td><td>19.0</td><td>37</td></tr> </table> <p>* No lead forming</p>	Part no.	Thread		A & C	5/16-32 UNEF 2A	M8 x 1.0	B & D	5/16-24 UNF 2A		± 0.75	002	102*	L3	14.3	32	L4	19.0	37	TPT002A	2000	1000	600	25	5	50	65	65
	Part no.	Thread																									
	A & C	5/16-32 UNEF 2A	M8 x 1.0																								
	B & D	5/16-24 UNF 2A																									
	± 0.75	002	102*																								
	L3	14.3	32																								
	L4	19.0	37																								
	TPT102A	2000	1000	600	25	5	50	65	65																		
	TPT002B	3000	830	500	25	8	55	70	70																		
	TPT102B	3000	830	500	25	8	55	70	70																		
TPT102C	3000	830	500	25	8	55	70	70																			
TPT102D	3000	830	500	25	8	55	70	70																			
TPT002D	4000	830	500	25	15	55	70	70																			
TPT102D	4000	830	500	25	15	55	70	70																			
<table border="1"> <tr><td>± 0.75</td><td>021</td><td>121</td></tr> <tr><td>L3</td><td>11.1</td><td>33</td></tr> <tr><td>L4</td><td>17.5</td><td>36*</td></tr> </table> <p>* Not formed</p> <table border="1"> <tr><th>Thread</th><th>D</th></tr> <tr><td>12-32 UNEF 2A</td><td>6.35</td></tr> <tr><td>M6 x 0.75</td><td>7.00</td></tr> </table>	± 0.75	021	121	L3	11.1	33	L4	17.5	36*	Thread	D	12-32 UNEF 2A	6.35	M6 x 0.75	7.00	TPT021A	4000	500	300	10	15	65	70	70			
	± 0.75	021	121																								
	L3	11.1	33																								
	L4	17.5	36*																								
Thread	D																										
12-32 UNEF 2A	6.35																										
M6 x 0.75	7.00																										
TPT121A	4000	500	300	10	15	65	70	70																			
TPT021B	6000	300	180	10	20	68	70	70																			
TPT121B	6000	300	180	10	20	68	70	70																			
	TPT114C	1750	350	210	10	5	35	50	50																		