



Apr. 2017 Ver.1.0
TDK Corporation

Multilayer Triplexer

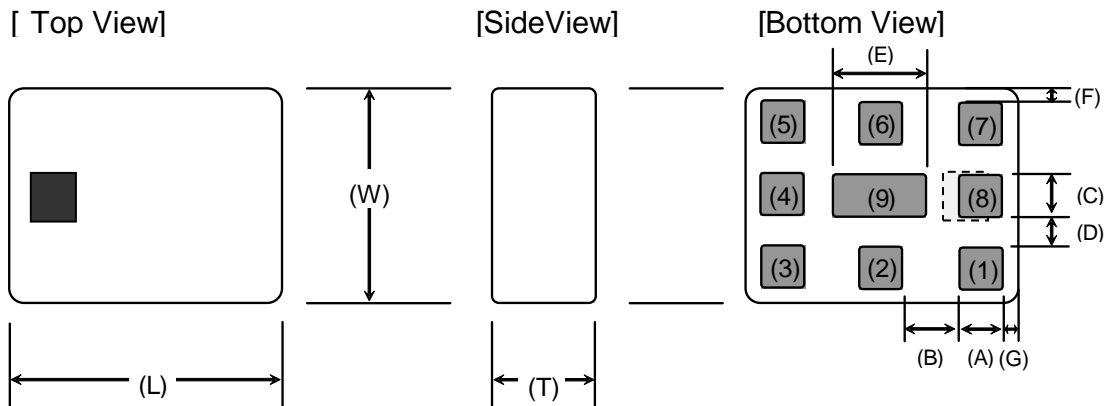
For Band 5&8&20 / Band 1&2&3&32 / Band 7&42

TPX Series 2.5x2.0mm [EIA 1008] TYPE

P/N: **TPX253800MT-7019B3**

TPX253800MT-7019B3

SHAPES AND DIMENSIONS



Dimensions (mm)

L	W	T	A	B	C	D	E	F	G
2.50	2.00	0.90	0.40	0.55	0.40	0.30	0.90	0.10	0.10
+/-0.10	+/-0.10	+/-0.10	+/-0.10	+/-0.10	+/-0.10	+/-0.10	+/-0.10	+/-0.10	+/-0.10

Terminal functions

(1)	High-Band Port
(2)	GND
(3)	Middle-Band Port
(4)	GND
(5)	Low-Band Port

(6)	GND
(7)	Common Port
(8)	GND
(9)	GND

TEMPERATURE RANGE

Operating temperature	Storage temperature
-40 to +85 °C	-40 to +85 °C

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■ ELECTRICAL CHARACTERISTICS

(Measurement)

Low-Band

Parameter	Frequency (MHz)	TDK Spec		
		Min.	Typ.	Max.
Insertion Loss (dB)	698 to 960	-	0.50	0.70
Return Loss (dB)	698 to 803	14	17.0	-
	803 to 960	14	20.7	-
Attenuation (dB)	1427 to 1511	7	10.7	-
	1710 to 2170	12	15.3	-
	2500 to 2690	27	32.2	-
	3400 to 3600	35	51.3	-

Ta = +25+/-5°C

Middle-Band

Parameter	Frequency (MHz)	TDK Spec		
		Min.	Typ.	Max.
Insertion Loss (dB)	1427 to 1511	-	0.98	1.20
	1710 to 2170	-	0.83	1.20
Return Loss (dB)	1427 to 1511	14	20.5	-
	1710 to 2170	14	16.4	-
Attenuation (dB)	698 to 960	14	18.2	-
	2500 to 2690	10	15.4	-
	3400 to 3600	15	19.2	-

Ta = +25+/-5°C

High-Band

Parameter	Frequency (MHz)	TDK Spec		
		Min.	Typ.	Max.
Insertion Loss (dB)	2496 to 2690	-	1.32	1.50
	3400 to 3800	-	0.29	0.60
Return Loss (dB)	2496 to 2690	14	17.7	-
	3400 to 3800	14	15.9	-
Attenuation (dB)	698 to 960	18	20.3	-
	1427 to 1511	16	18.9	-
	1710 to 2170	15	21.7	-

Ta = +25+/-5°C

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■ ELECTRICAL CHARACTERISTICS

(Measurement)

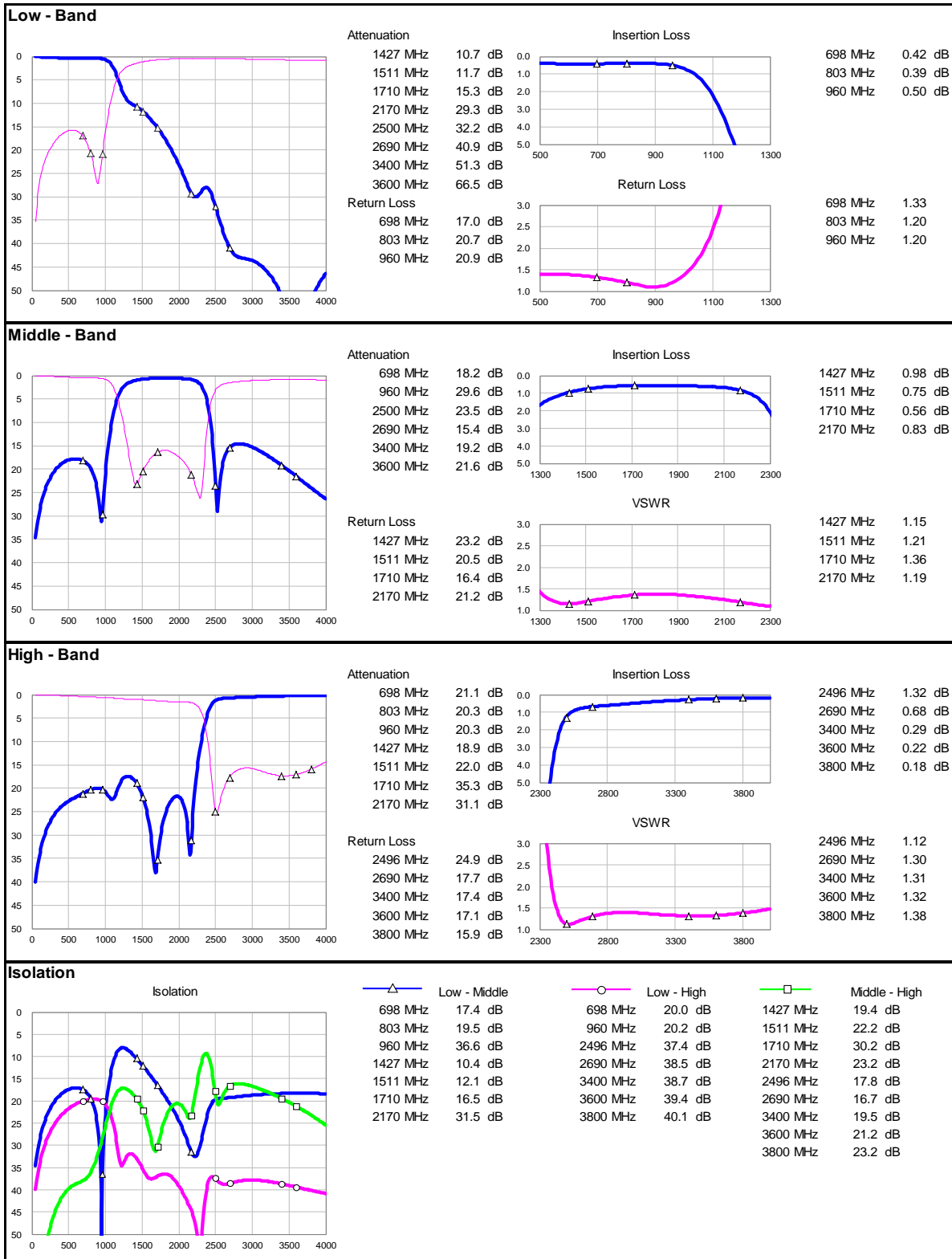
Isolation

Parameter	Frequency (MHz)	TDK Spec		
		Min.	Typ.	Max.
Low to Middle (dB)	698 to 960	14	17.4	-
	1427 to 1511	7	10.4	-
	1710 to 2170	13	16.5	-
Low to High (dB)	698 to 960	15	19.6	-
	2496 to 2690	30	37.4	-
	3400 to 3800	30	38.7	-
Middle to High (dB)	1427 to 1511	15	19.4	-
	1710 to 2170	15	20.0	-
	2496 to 2690	13	16.7	-
	3400 to 3800	15	19.5	-

 $T_a = +25 \pm 5^\circ\text{C}$

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FREQUENCY CHARACTERISTICS

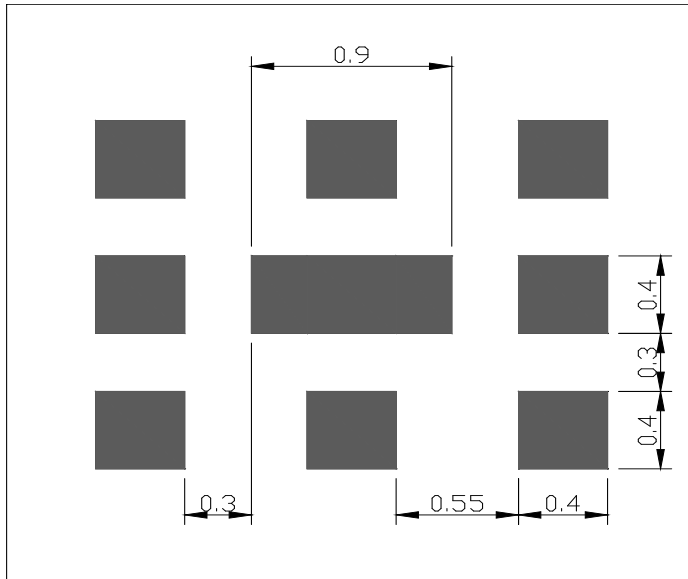


All specifications are subject to change without notice.

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RECOMMENDED LAND PATTERN



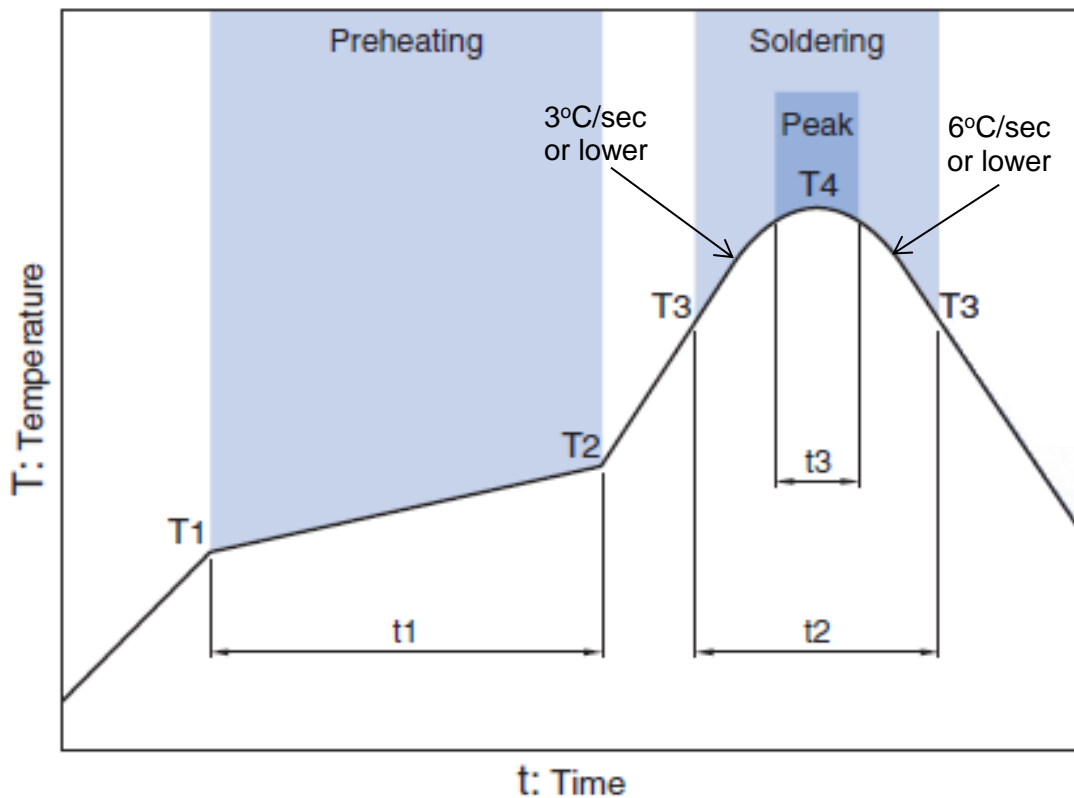
Unit : mm

ENVIRONMENT INFORMATION

RoHS Statement
RoHS Compliance

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RECOMMENDED REFLOW PROFILE



Preheating			Soldering			
			Critical zone (T3 to T4)		Peak	
Temp.	Temp.	Time	Temp.	Time	Temp.	Time
T1	T2	t1	T3	t2	T4	t3 *
150°C	200°C	60 to 120sec	217°C	60 to 120sec	240 to 260°C	30 sec Max

* t3 : Time within 5°C of actual peak temperature

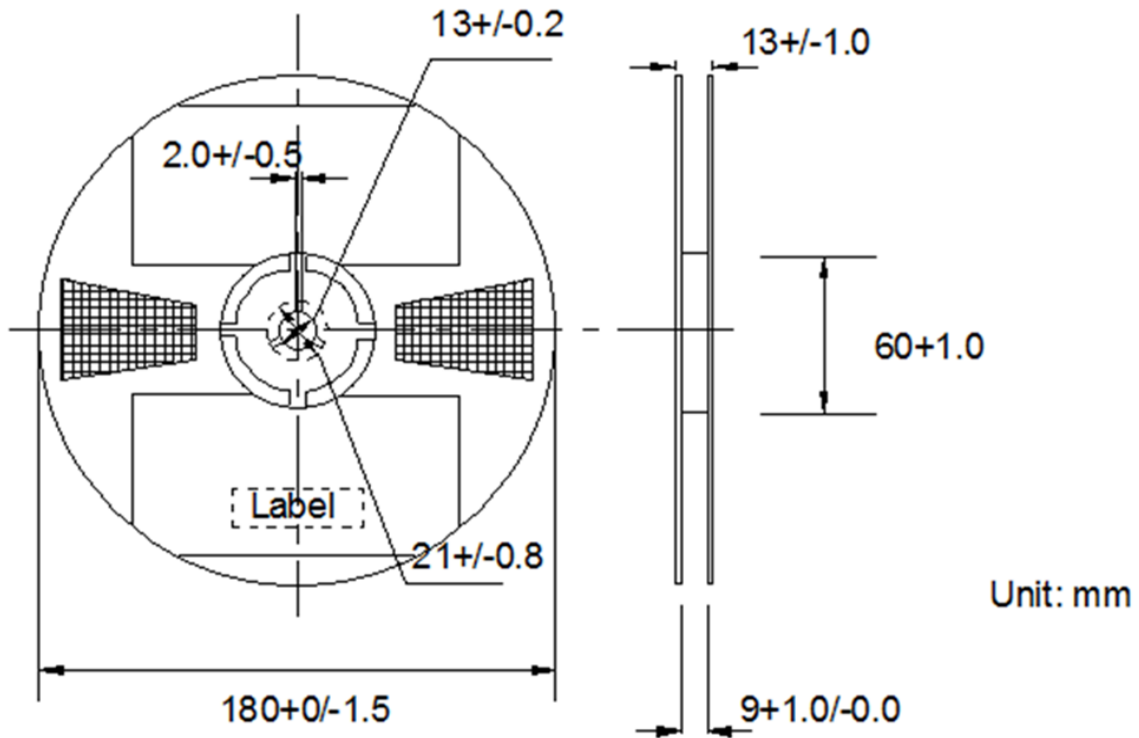
The maximum number of reflow is 3.

Note: Lead free solder is recommended.
Recommended solder is Sn-3.0Ag-0.5Cu. (M705 by Senju Metal Industry)

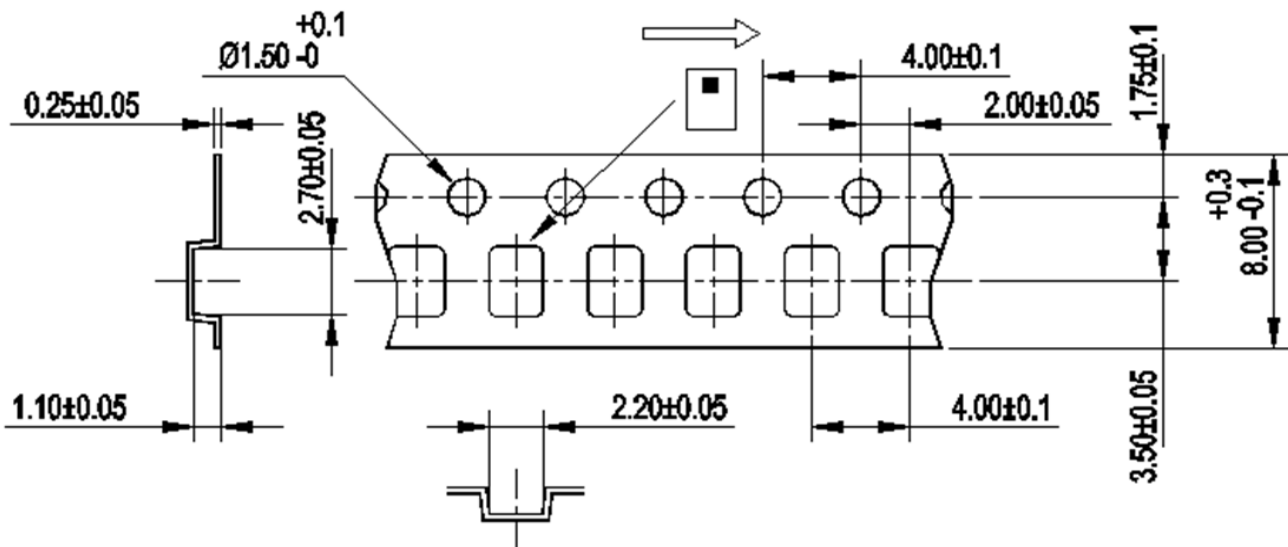
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PACKAGING STYLE

Reel Dimensions



Carrier Tape



STANDARD PACKAGE QUANTITY (pieces/reel)
2,000

REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using these products.

REMINDERS

The products listed on this specification sheet are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.

The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property. Please understand that we are not responsible for any damage or liability caused by use of the products in any of the applications below or for any other use exceeding the range or conditions set forth in this specification sheet.

1. Aerospace/Aviation equipment
2. Transportation equipment (cars, electric trains, ships, etc.)
3. Medical equipment
4. Power-generation control equipment
5. Atomic energy-related equipment
6. Seabed equipment
7. Transportation control equipment
8. Public information-processing equipment
9. Military equipment
10. Electric heating apparatus, burning equipment
11. Disaster prevention/crime prevention equipment
12. Safety equipment
13. Other applications that are not considered general-purpose applications

When using this product in general-purpose applications, you are kindly requested to take into consideration securing protection circuit/equipment or providing backup circuits, etc., to ensure higher safety.