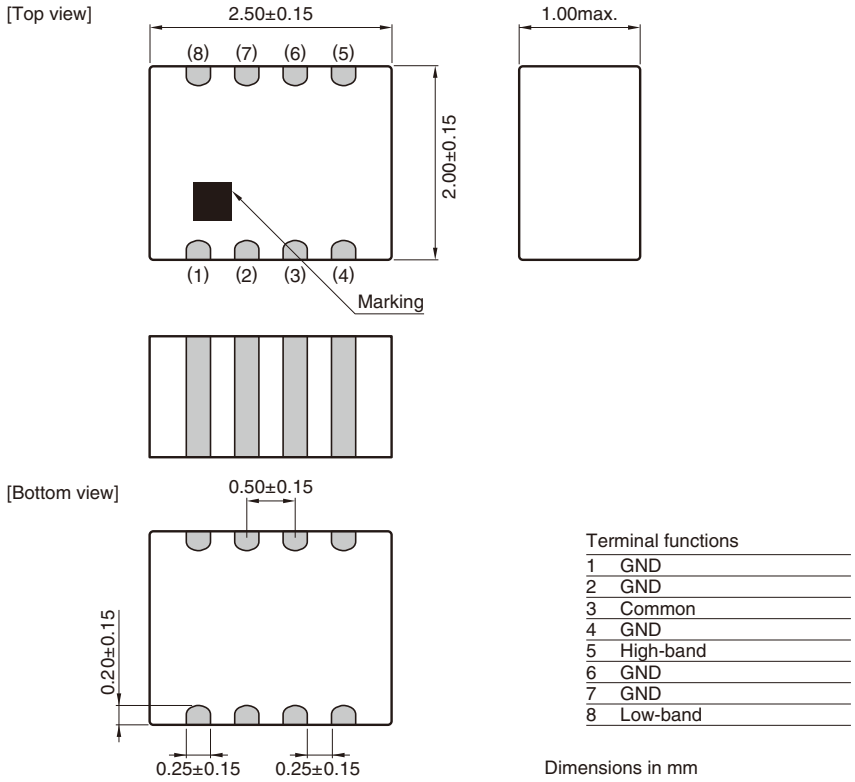
Multilayer Diplexer

Conformity to RoHS Directive

For 698-960MHz / 1710-2690MHz

DPX252690DT-5031A1

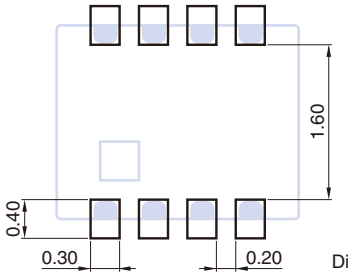
SHAPES AND DIMENSIONS



Terminal functions	
1	GND
2	GND
3	Common
4	GND
5	High-band
6	GND
7	GND
8	Low-band

Dimensions in mm

RECOMMENDED LAND PATTERN



Dimensions in mm

○RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. http://product.tdk.com/en/environment/rohs/

DPX252690DT-5031A1

■ELECTRICAL CHARACTERISTICS

□LOW-BAND

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Insertion Loss (dB)	698 to 960	—	0.28	0.36
	698 to 960	—	—	0.45 (–40 to +85°C)
Return Loss (dB)	698 to 960	20	25	—
Attenuation (dB)	1574 to 1605	12	28	—
	1648 to 1698	16	30	—
	1760 to 1830	21	26	—
	2472 to 2494	28	31	—
	2495 to 2547	13	31	—
	2640 to 2745	18	31	—
	3296 to 3396	16	25	—
	3520 to 3660	21	26	—
	4120 to 4245	26	30	—
	4400 to 4575	28	33	—
	4944 to 5094	35	48	—
	5280 to 5490	28	35	—
	5768 to 5943	25	33	—
	6160 to 6405	22	36	—
	6592 to 6792	22	27	—
	7040 to 7320	15	18	—
	7416 to 7641	12	14	—
	7920 to 8235	4	10	—
Characteristic Impedance (Ω)			50 (Nominal)	

・Ta: +25±5°C

□HIGH-BAND

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Insertion Loss (dB)	1710 to 1980	—	0.42	0.60
	2025 to 2690	—	0.57	0.70
	1710 to 1980	—	—	0.70 (–40 to +85°C)
	2025 to 2690	—	—	0.80 (–40 to +85°C)
Return Loss (dB)	1710 to 2690	14	16	—
Attenuation (dB)	698 to 960	24	27	—
	815 to 894	30	33	—
	3296 to 3396	0	10	—
	3420 to 3570	13	18	—
	3700 to 3820	12	22	—
	3840 to 3960	15	20	—
	4120 to 4245	14	20	—
	4400 to 4575	14	22	—
	4944 to 5094	21	34	—
	5130 to 5335	30	48	—
	5550 to 5730	30	43	—
	5760 to 5845	34	44	—
	5846 to 5940	17	39	—
	6160 to 6405	4	25	—
Characteristic Impedance (Ω)			50 (Nominal)	

・Ta: +25±5°C

DPX252690DT-5031A1

ELECTRICAL CHARACTERISTICS

COMMON

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Isolation (dB)	698 to 915	25	27	—
	915 to 960	24	27	—
	1710 to 2690	25	27	—
	2112 to 2148	25	28	—
Characteristic Impedance (Ω)			50 (Nominal)	

・Ta: +25±5°C

TEMPERATURE RANGE

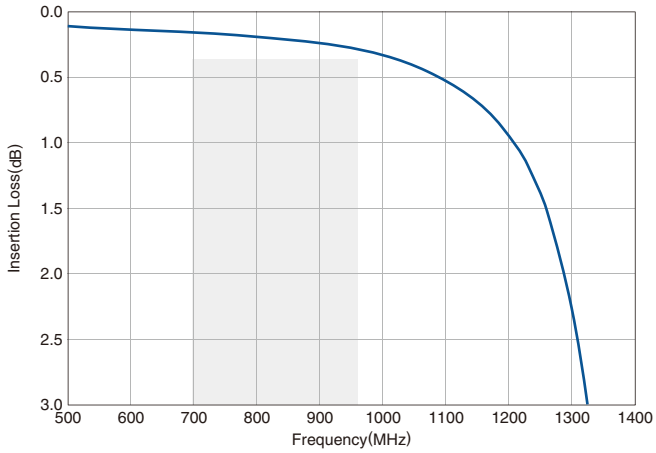
Operating temperature (°C)	Storage temperature (°C)
–40 to +85	–40 to +85

DPX252690DT-5031A1

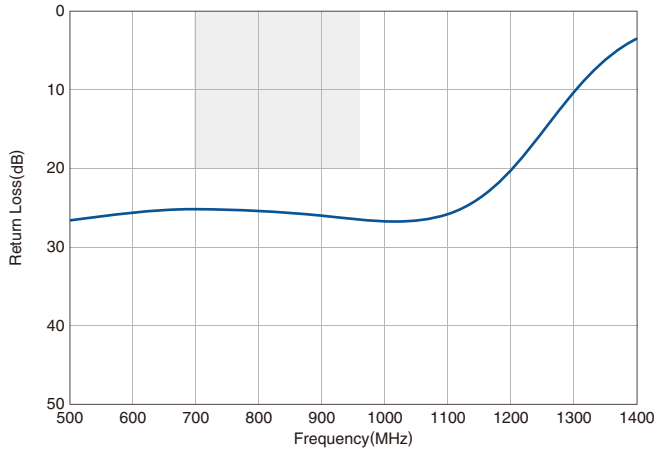
FREQUENCY CHARACTERISTICS

LOW-BAND

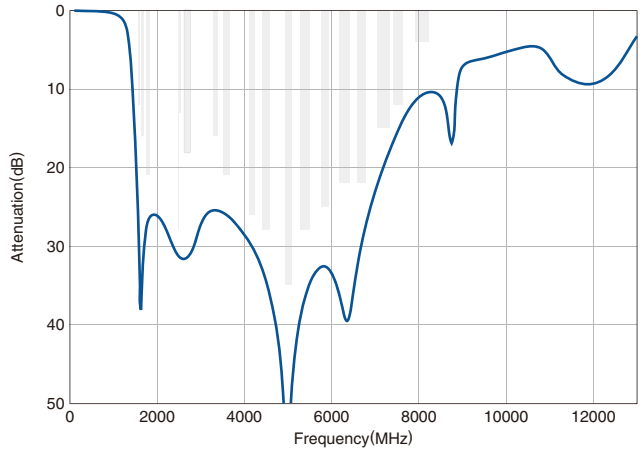
Insertion Loss



Return Loss

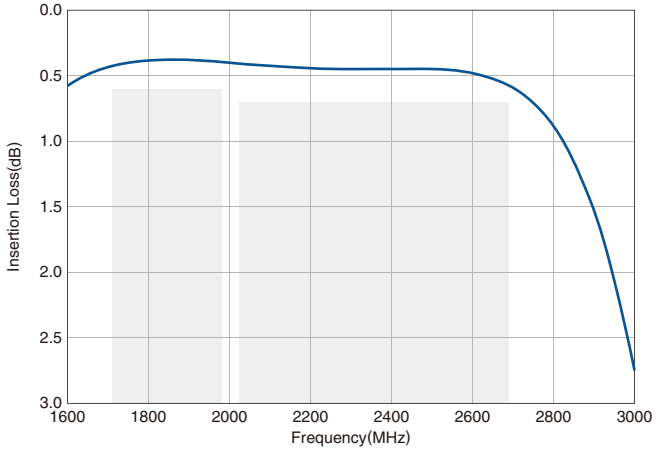


Attenuation

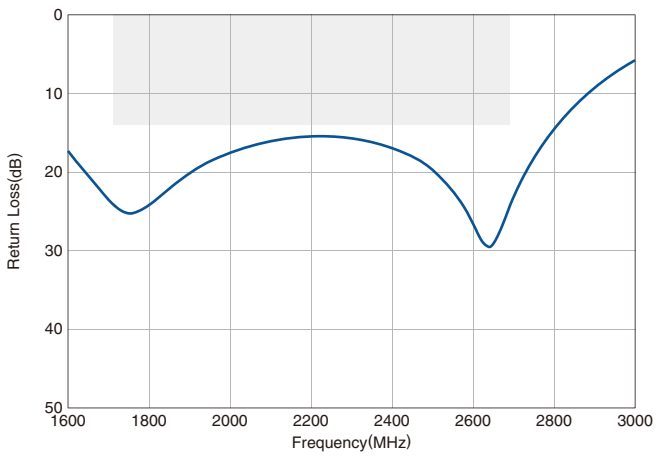


HIGH-BAND

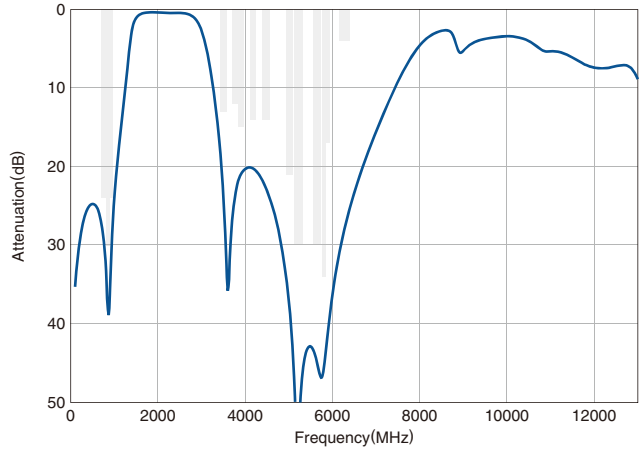
Insertion Loss



Return Loss



Attenuation

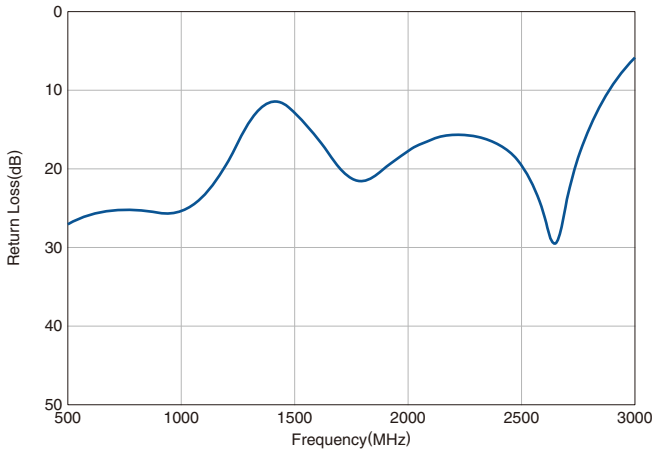


DPX252690DT-5031A1

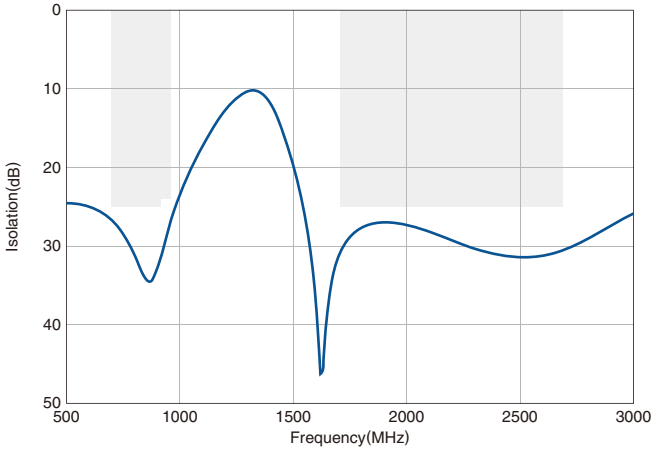
FREQUENCY CHARACTERISTICS

COMMON

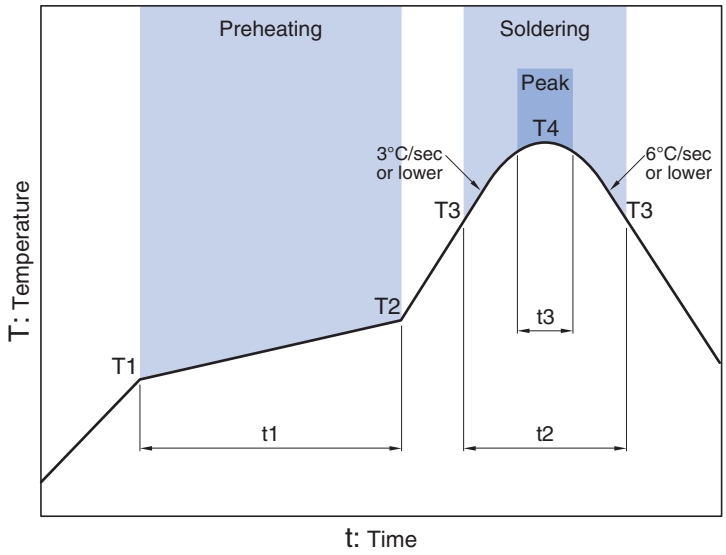
Return Loss



Isolation



RECOMMENDED REFLOW PROFILE



Preheating			Soldering			
			Critical zone (T3 to T4)		Peak	
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	30sec max.

* t3 : Time within 5°C of actual peak temperature
The maximum number of reflow is 3.

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 catalog 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 catalog.

(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.