



Oct. 2017 Ver.1.0
TDK Corporation

Multilayer Band Pass Filter

For 2.4GHz W-LAN & Bluetooth

DEA Series 2.0x1.25mm [EIA 0805] TYPE

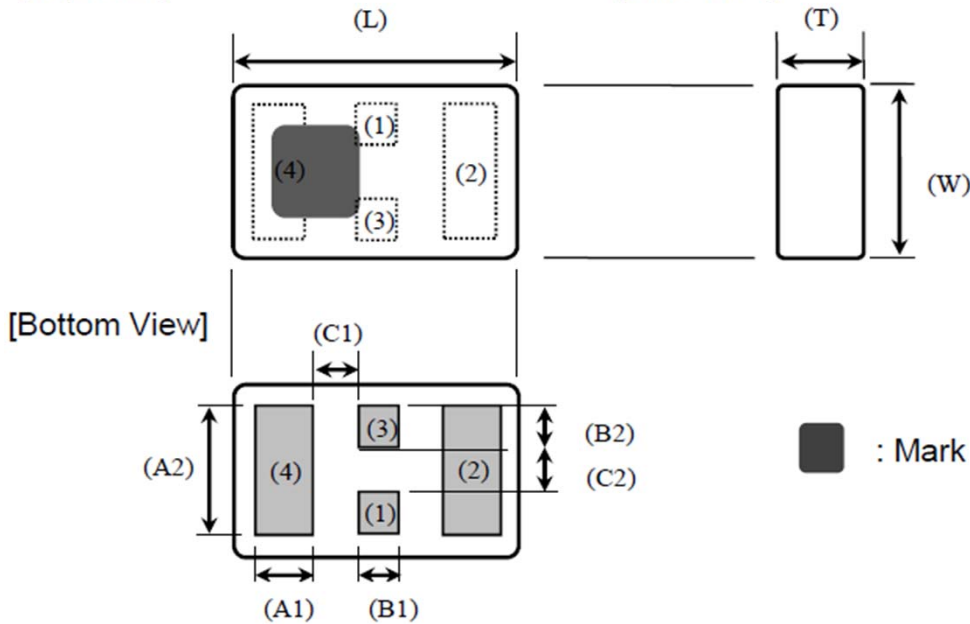
P/N: **DEA202450BT-1294D1-H**

DEA202450BT-1294D1-H

SHAPES AND DIMENSIONS

[Top View]

[Side View]



Dimensions (mm)

L	W	T	A1	B1	C1	A2	B2	C2
2.00	1.25	0.80	0.40	0.30	0.30	0.95	0.30	0.35
+/-0.15	+/-0.10	Max	+/-0.10	+/-0.05	+/-0.10	+/-0.10	+/-0.05	+/-0.10

Terminal functions

(1)	Input Port
(2)	GND

(3)	Output Port
(4)	GND

TEMPERATURE RANGE

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

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■ ELECTRICAL CHARACTERISTICS

(Measurement)

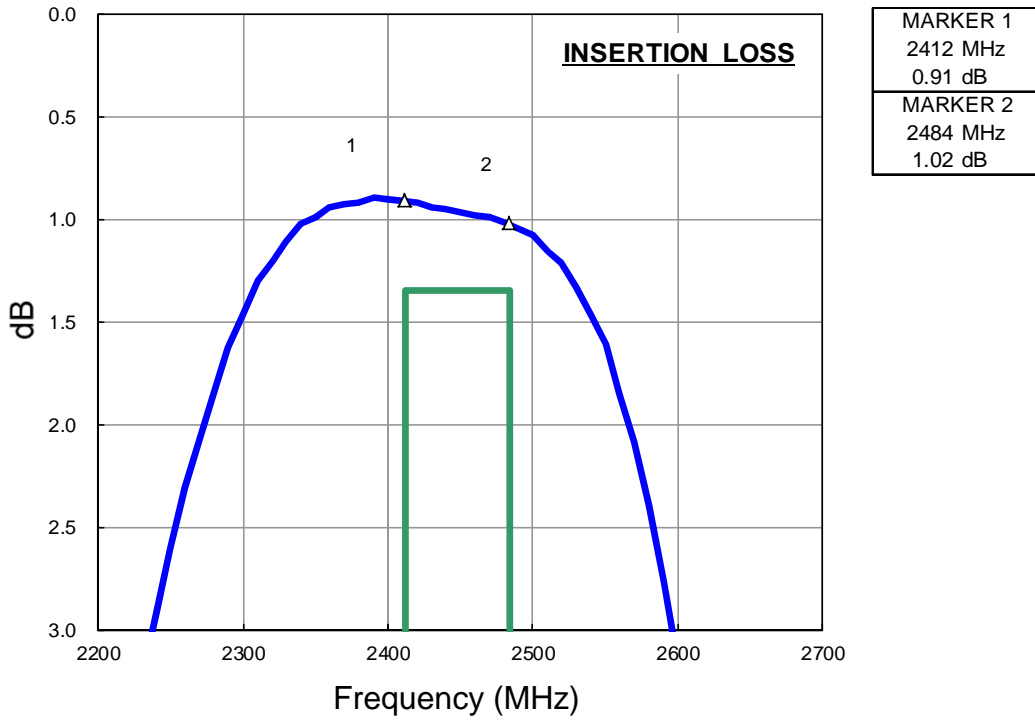
Parameter	Frequency (MHz)	TDK Spec		
		Min.	Typ.	Max.
Insertion Loss (dB)	2412 to 2484	-	1.02	1.35
Insertion Loss (dB) (-40 to +85 °C)	2412 to 2484	-	-	1.70
Return Loss (dB)	2412 to 2484	10	22	-
VSWR	2412 to 2484	-	1.17	1.92
Attenuation (dB)	804 to 828	30	42	-
	1608 to 1656	20	23	-
	3216 to 3312	30	49	-
	4020 to 4140	40	52	-
	4824 to 4968	20	30	-
	5628 to 5796	20	27	-
	6432 to 6624	20	42	-
	7200 to 7500	35	44	-
	7500 to 10000	20	30	-
Power Handling (W)		-		1
Characteristic Impedance (ohm)		50 (Nominal)		

Ta = +25+/-5°C

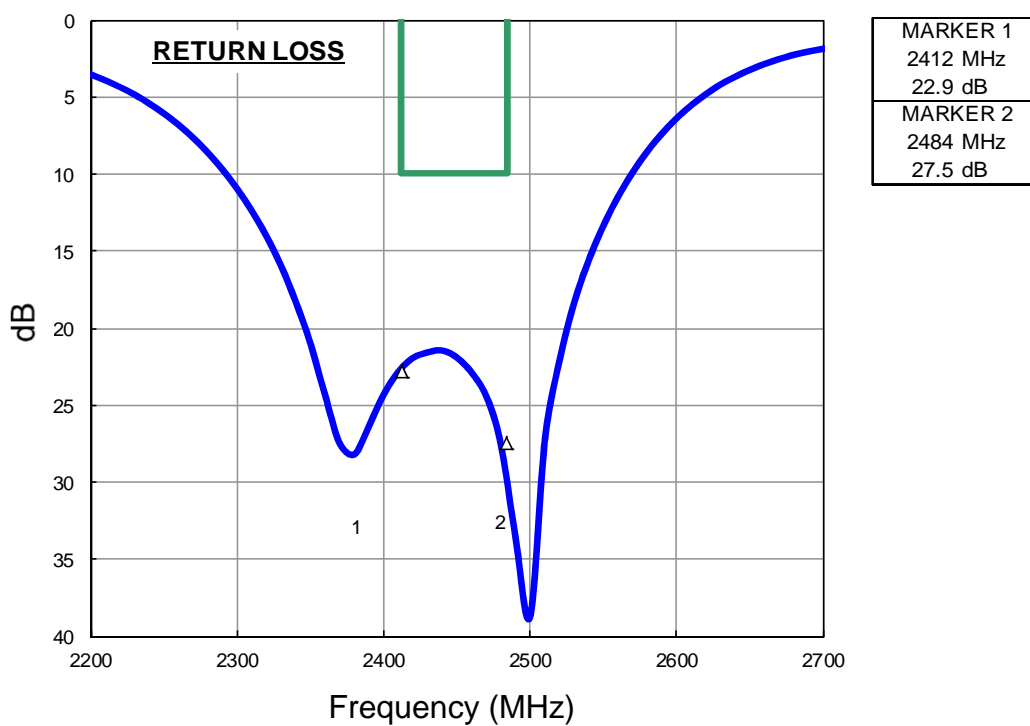
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FREQUENCY CHARACTERISTICS

Insertion Loss



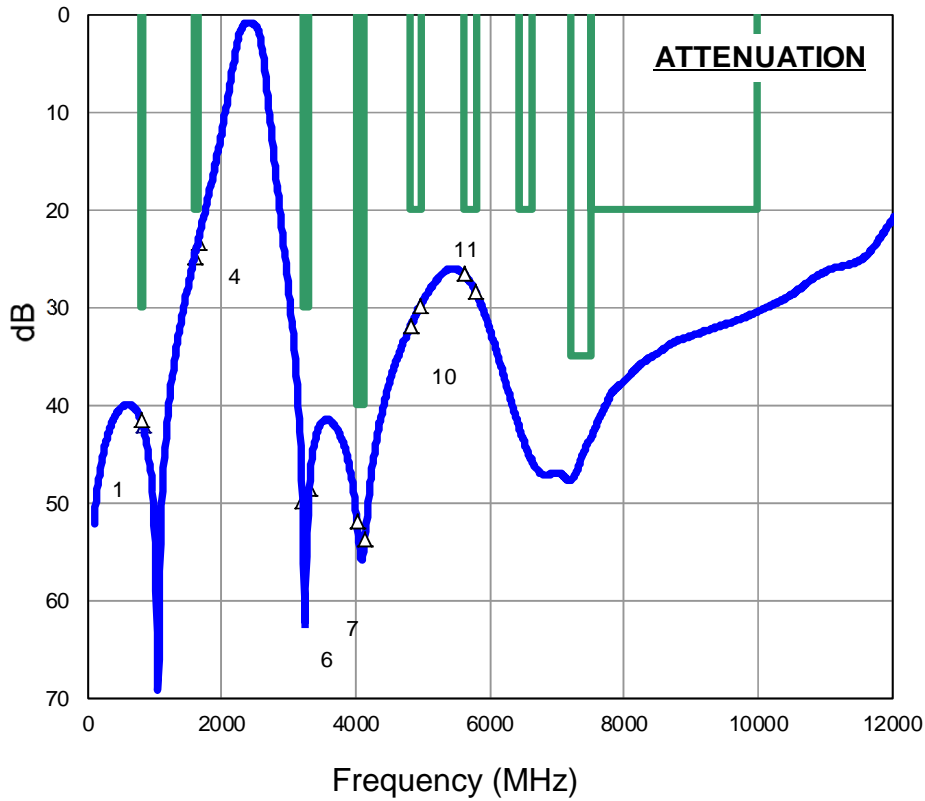
Return Loss



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FREQUENCY CHARACTERISTICS

Attenuation

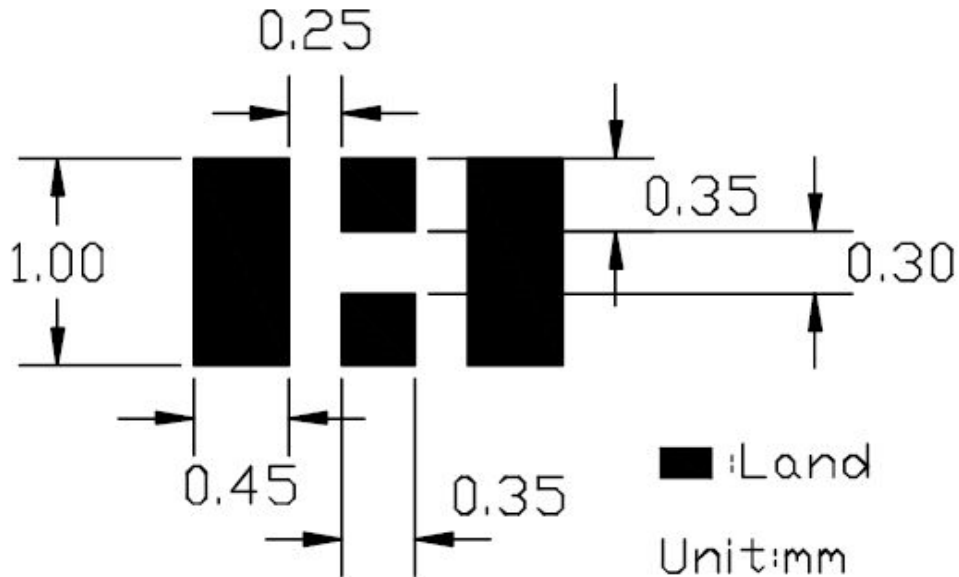


MARKER 1	804 MHz	41.6 dB
MARKER 2	828 MHz	42.0 dB
MARKER 3	1608 MHz	24.8 dB
MARKER 4	1656 MHz	23.3 dB
MARKER 5	3216 MHz	49.9 dB
MARKER 6	3312 MHz	48.7 dB
MARKER 7	4020 MHz	52.0 dB
MARKER 8	4140 MHz	53.8 dB
MARKER 9	4824 MHz	32.0 dB
MARKER 10	4968 MHz	30.0 dB

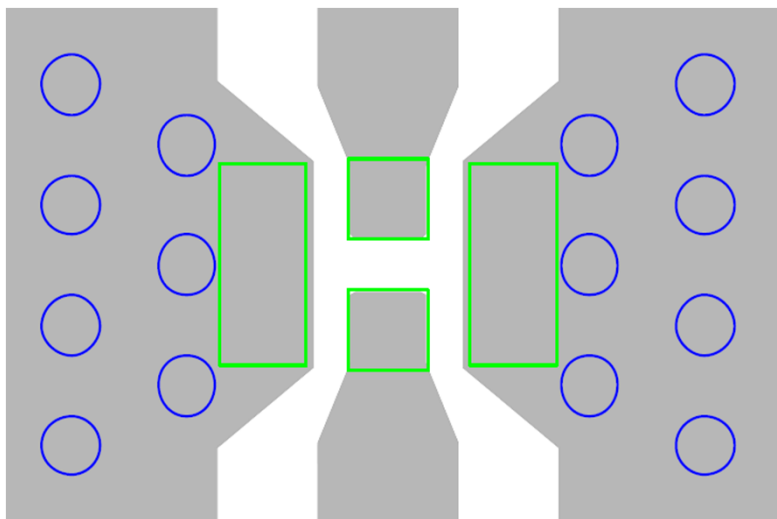
MARKER 15	7200 MHz	47.8 dB
MARKER 16	7500 MHz	43.5 dB
MARKER 13	6432 MHz	42.1 dB
MARKER 14	6624 MHz	45.6 dB
MARKER 11	5628 MHz	26.6 dB
MARKER 12	5796 MHz	28.5 dB

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RECOMMENDED LAND PATTERN



EVALUATION BOARD



- Thru Hole
- Surface Pattern
- Resist

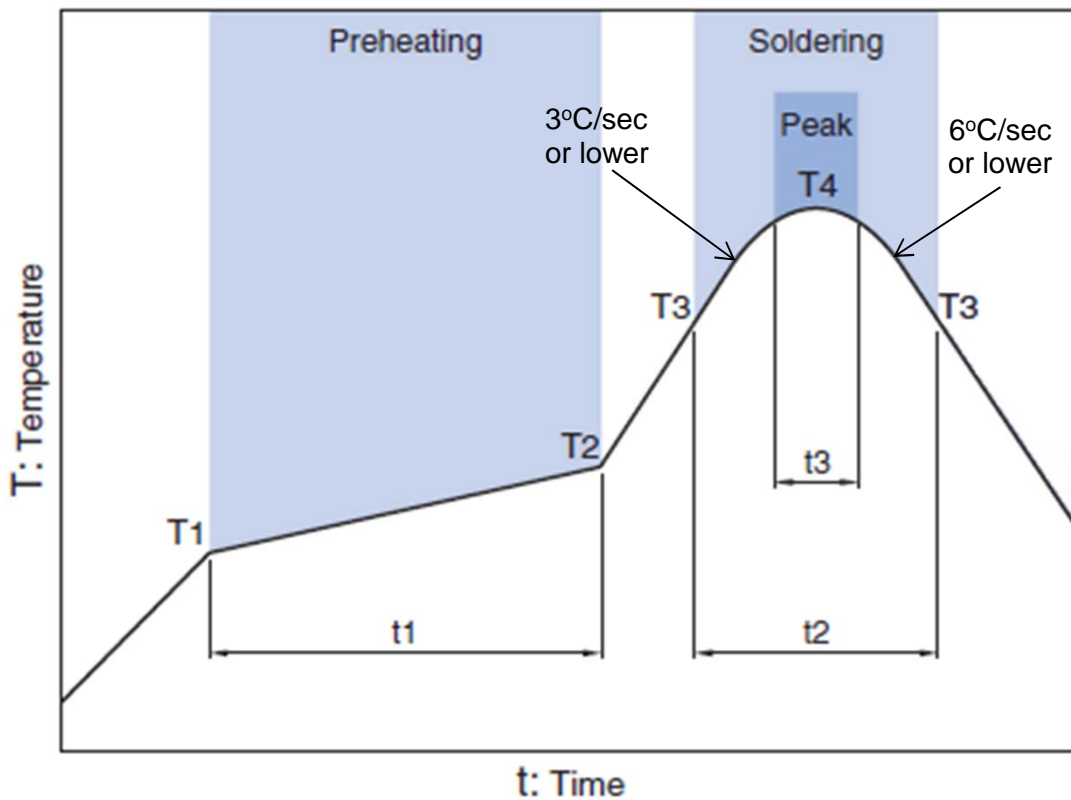
Material & Layer	Thickness
Top Resist	-
Copper Surface Pattern	0.035mm
FR-4	0.10mm
Inner GND	0.018mm
FR-4	0.30mm
Copper Bottom GND	0.035mm

ENVIRONMENT INFORMATION

RoHS Statement
RoHS Compliance

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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	30 sec Max

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

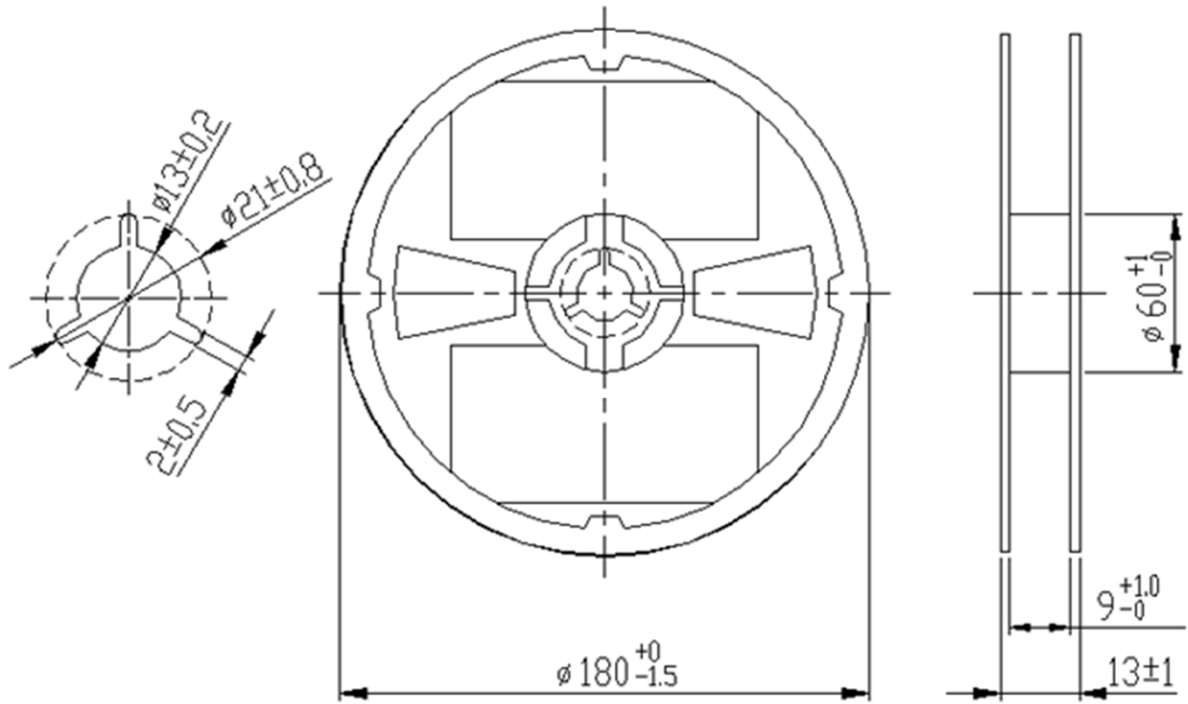
The maximum number of reflow is 3.

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

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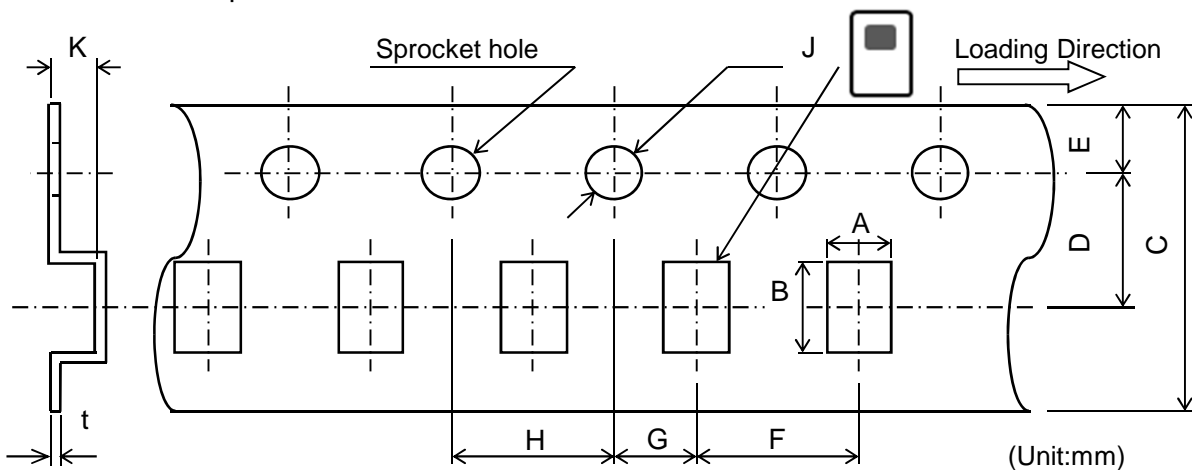
PACKAGING STYLE

Reel Dimensions



Dimensions in mm

Carrier Tape



(Unit:mm)

A	B	C	D	E	F	G	H	J	K	t
1.45	2.2	8.0	3.5	1.75	4.0	2.0	4.0	1.5	0.95	0.25
+/-0.05	+/-0.05	+0.3/-0.1	+/-0.05	+/-0.10	+/-0.10	+/-0.05	+/-0.10	+0.1/-0	Max	+/-0.05

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
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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.