



Nov. 2023 Ver.2.5a  
TDK Corporation

## Multilayer Band Pass Filter

For 6240-8240MHz

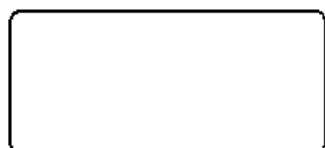
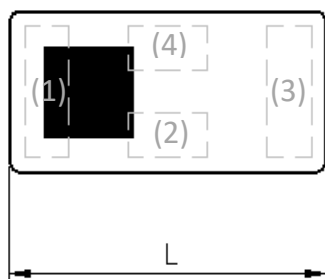
DEA Series 1.6x0.8mm [EIA 0603] TYPE

P/N: **DEA167240BT-2380B1**

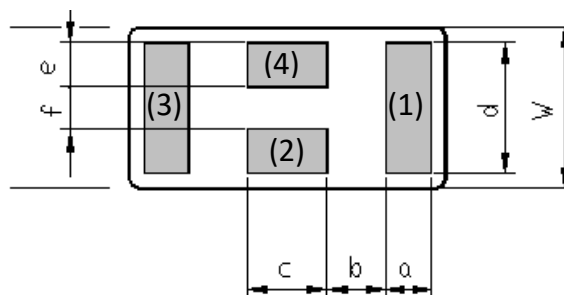
## DEA167240BT-2380B1

### SHAPES AND DIMENSIONS

[Top View]



[Bottom View]



Dimensions (mm)

L	W	T	a	b	c	d	e	f
1.60	0.80	0.80	0.225	0.30	0.40	0.65	0.22	0.21
+/-0.10	+/-0.10	Max	+/-0.05	+/-0.05	+/-0.05	+/- 0.05	+/-0.05	+/-0.05

Terminal functions

(1)	Input Port
(2)	GND
(3)	Output Port
(4)	GND

### TERMINATION FINISH

Material
Ag

All specifications are subject to change without notice.

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## DEA167240BT-2380B1

### ELECTRICAL CHARACTERISTICS

( Measurement )

Parameter	Frequency (MHz)	TDK Spec		
		Min.	Typ.	Max.
Insertion Loss (dB)	6240 to 8240	-	1.32	2.35
	to	-		
Insertion Loss (dB) ( -40 to +90 °C )	6240 to 8240	-		3.00
	to	-		
Ripple (dB)	6240 to 8240	-	0.49	1.50
VSWR (Input Port)	6240 to 8240	-	1.59	2.00
	to	-		
VSWR (Output Port)	6240 to 8240	-	1.54	2.00
	to	-		
Group Delay Ripple(ps)	6240 to 8240	-	281	750
	to	-		
Phase Delay(deg)	6240 to 8240	-	-	-
	to	-		
Attenuation (dB)	698 to 2300	38	47.7	-
	2300 to 3800	38	46.3	-
	5150 to 5470	17	22.9	-
	5470 to 5725	4	13.1	-
	5725 to 5850	2	8.5	-
	5850 to 5925	2	6.0	-
	12500 to 16500	30	38.0	-
	18700 to 20000	30	40.1	-
	to			-
Characteristic Impedance (ohm)		50 (Nominal)		

### MAXIMUM RATINGS

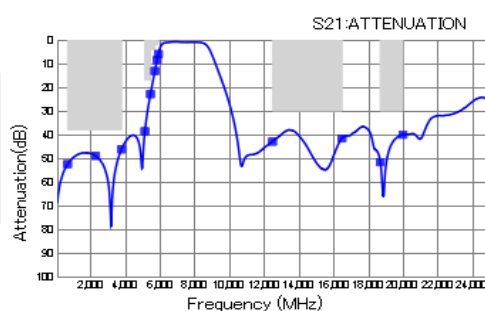
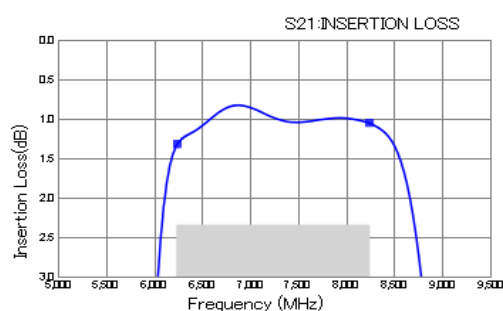
Parameter		TDK Spec	Conditions
Operating temperature (°C)		-40 to +90 °C	
Storage temperature (°C)		-40 to +90 °C	
Power Handling (W) *1	Frequency (MHz)		
	6240 to 8240	1	CW Duty 50%
Human Body Model : HBM	@Each Port (V)	+/-1000	100pF / 1500ohm
Machine Model : MM	@Each Port (V)	+/-150	200pF / 0ohm
Charged Device Model : CDM	@Each Port (V)	+/-500	Humidity : 60%RH max

\*1 : Refer to 3GPP TS 38.101-1 V15.2.0

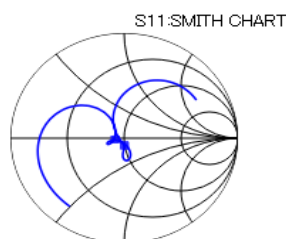
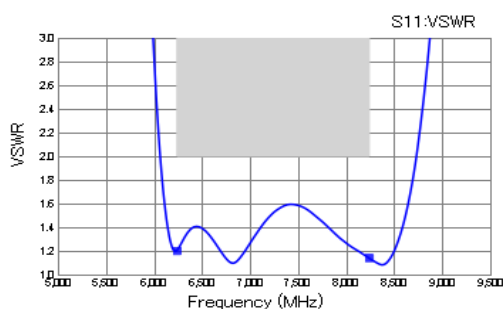
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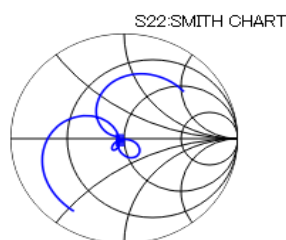
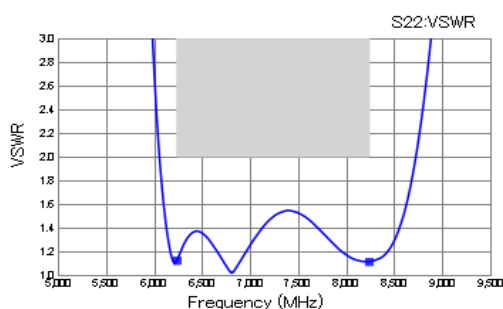
### FREQUENCY CHARACTERISTICS



P/N	DUT
698-2300	47.71
2300-3800	46.26
5150-5470	22.94
5470-5725	13.14
5725-5850	8.51
5850-5925	5.97
12500-16500	38.04
18700-20000	40.06
698	52.51
2300	49.03
3800	46.26
5150	38.61
5470	22.94
5725	13.14
5850	8.51
5925	5.97
12500	42.97
16500	41.56
18700	51.61
20000	40.06



P/N	DUT
6240	41.51 / -0.12
8240	49.02 / -6.33

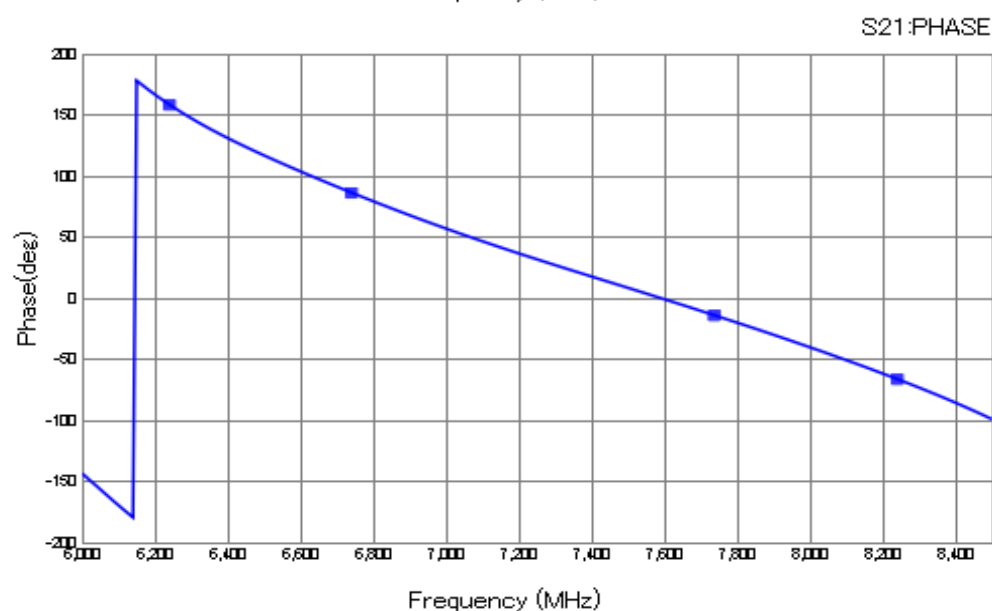
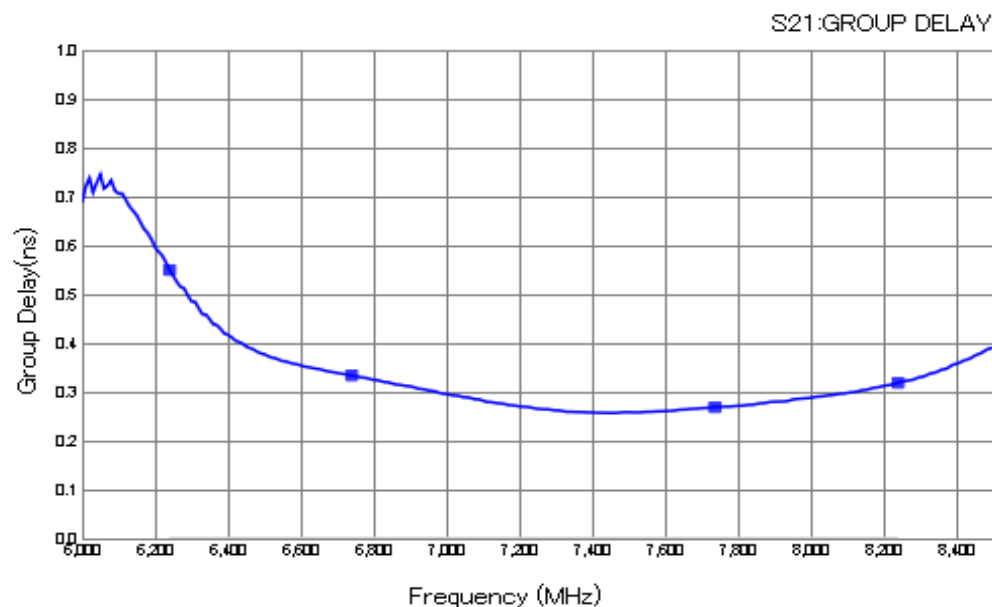


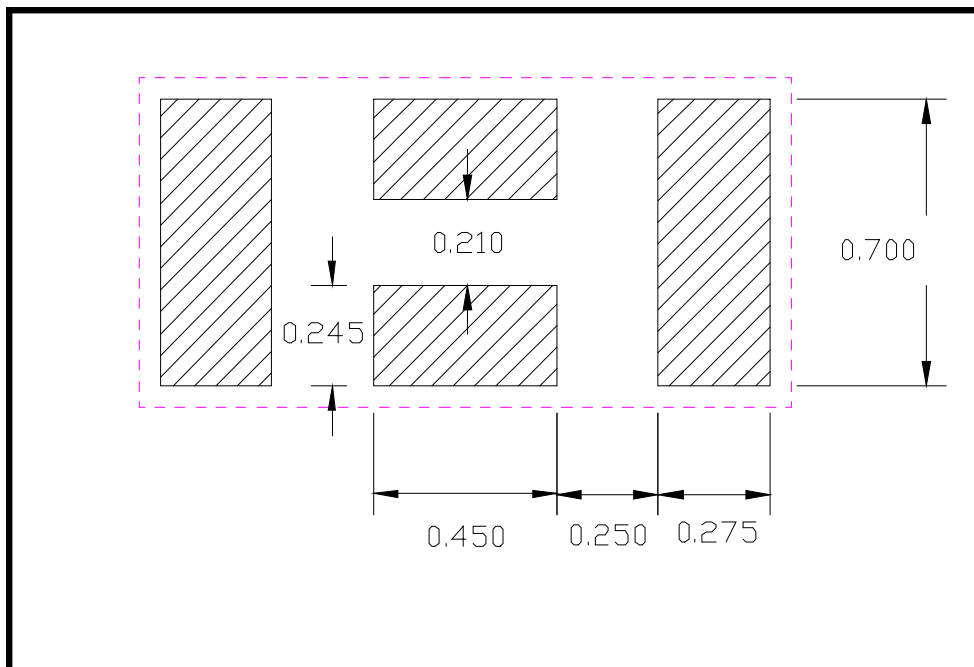
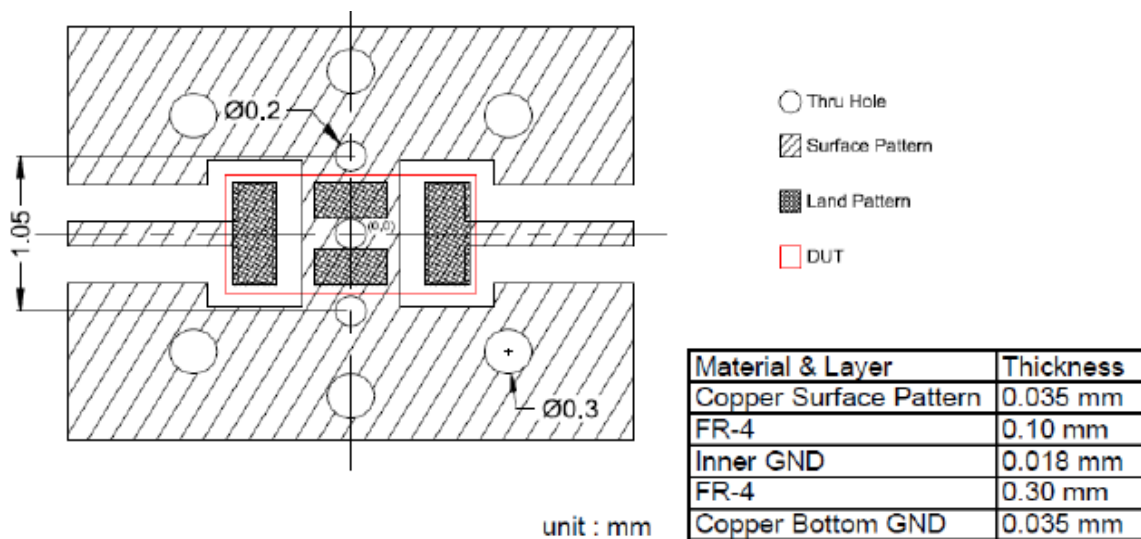
P/N	DUT
6240	45.53 / -3.34
8240	45.06 / 1.15

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### ■ FREQUENCY CHARACTERISTICS



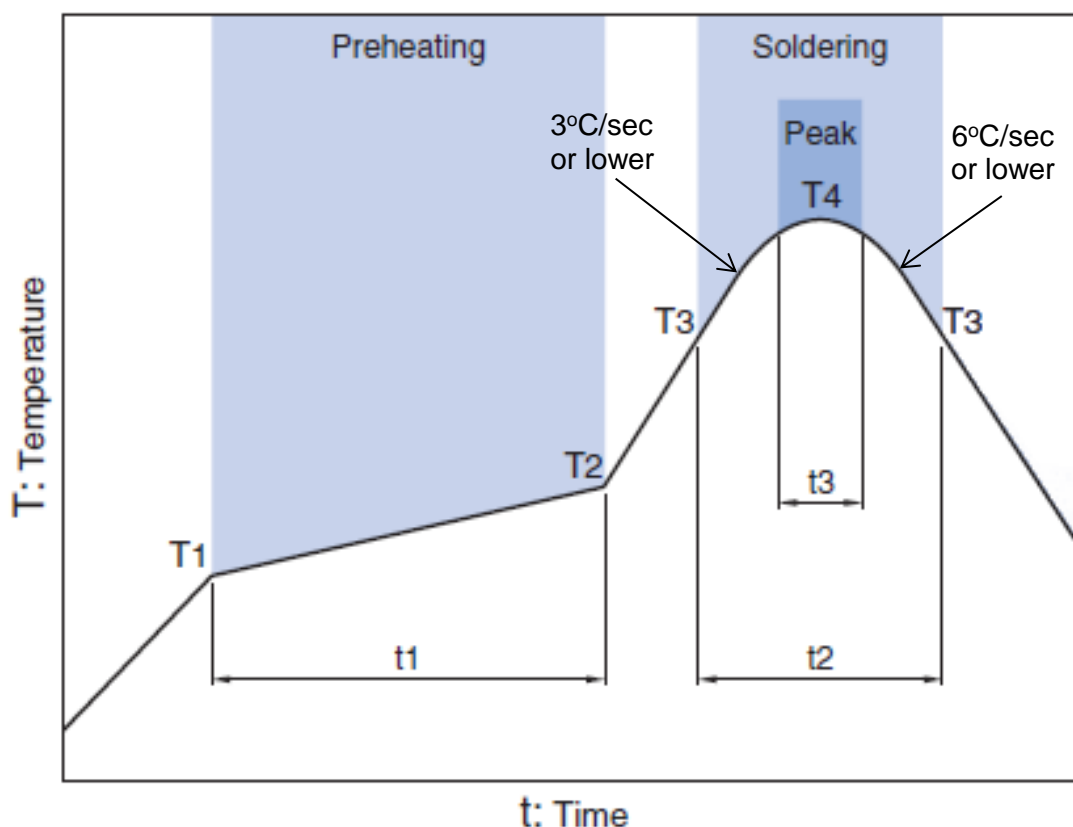
**DEA167240BT-2380B1****RECOMMENDED LAND PATTERN****EVALUATION BOARD**

\* Line width should be designed to match 50 ohm characteristic impedance depending on PCB material and thickness.

**ENVIRONMENT INFORMATION**

RoHS Statement  
RoHS Compliance

TDK Corporation

**DEA167240BT-2380B1****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)

**GENERAL TECHNICAL INFORMATION**

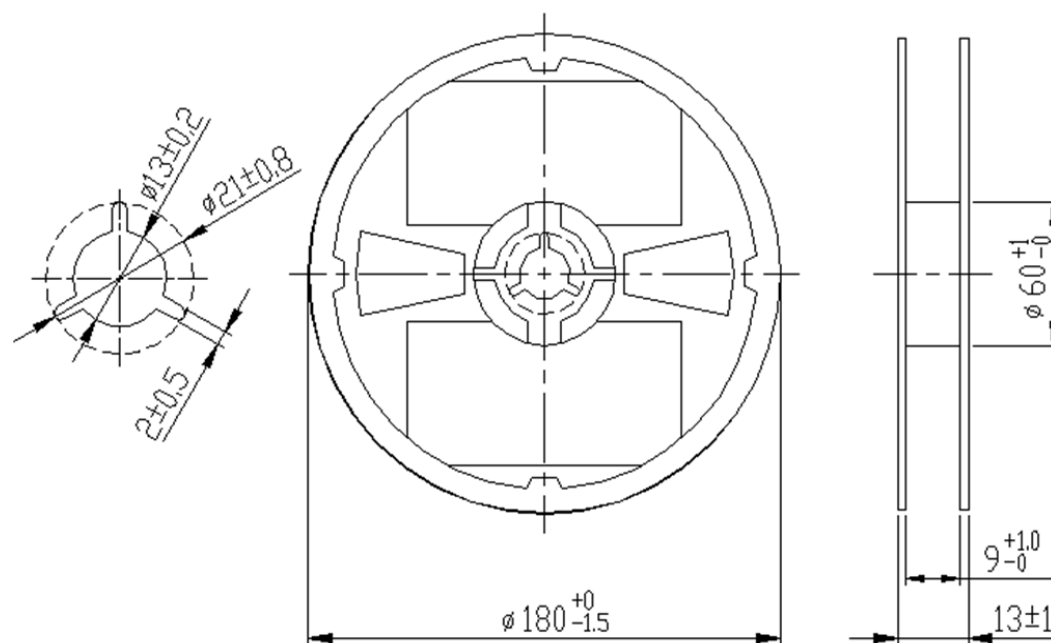
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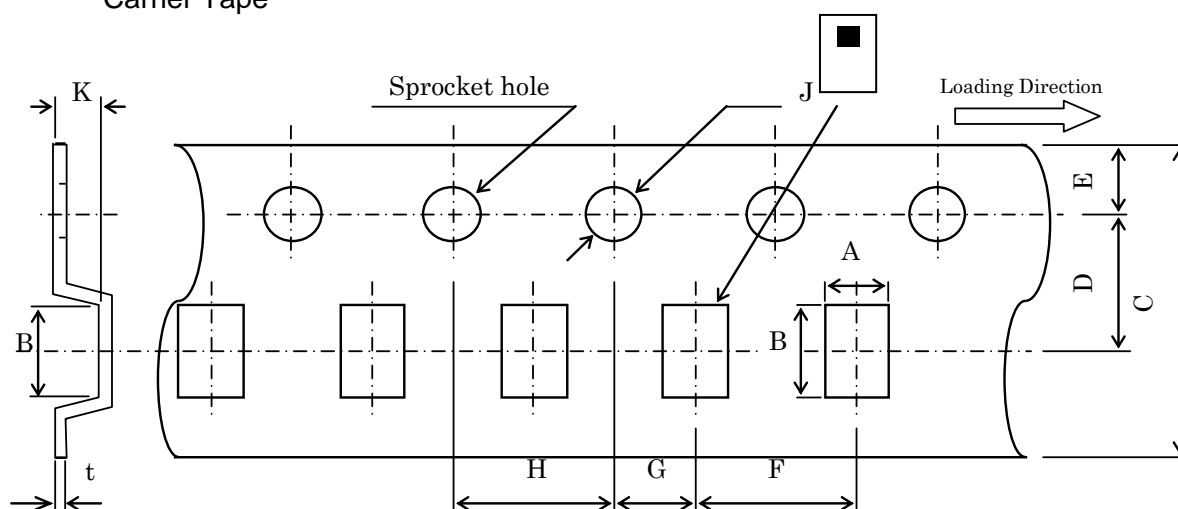
### PACKAGING STYLE

Reel Dimensions



Dimensions in mm

Carrier Tape



Dimensions (mm)

A	B	C	D	E	F	G	H	J	K	t
0.97	1.8	8.0	3.5	1.75	4.0	2.0	4.0	1.5	1.0	0.25
+/-0.05	+/-0.05	+/-0.3	+/-0.05	+/-0.1	+/-0.1	+/-0.05	+/-0.1	+0.1/-0	MAX	+/-0.05

#### STANDARD PACKAGE QUANTITY

( pieces/reel )

4,000

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## 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.