



產品編碼 P/N	PDMCAT1386-221413series	測試設備 TEST INSTRUMENT	Keysight:E4991B Chroma:16502 3302
產品系列 Series	共模电感	測試頻率 TEST FREQUENCY	1KHZ / 0.3V

客戶名稱  
Customer

:

客戶編碼  
Customer P/N

:

產品系列  
Series

:

共模电感  
Common Mode Line Chokes

產品編碼  
Supply P/N

:

PDMCAT1386-221413series

發版號  
Version

:

A2.1

承認日期  
Endorsement Date

:

2023-4-14

備註  
Note

:

譜羅德電子科技（深圳）有限公司 PuLuoDe Electronic Technology (Shenzhen) Co. LTD	
製作 APPROVED	Ben
審查 CHECKED	Yuki
確認 PREPARED	Peter

客戶承認

Customer Approval

客戶簽章



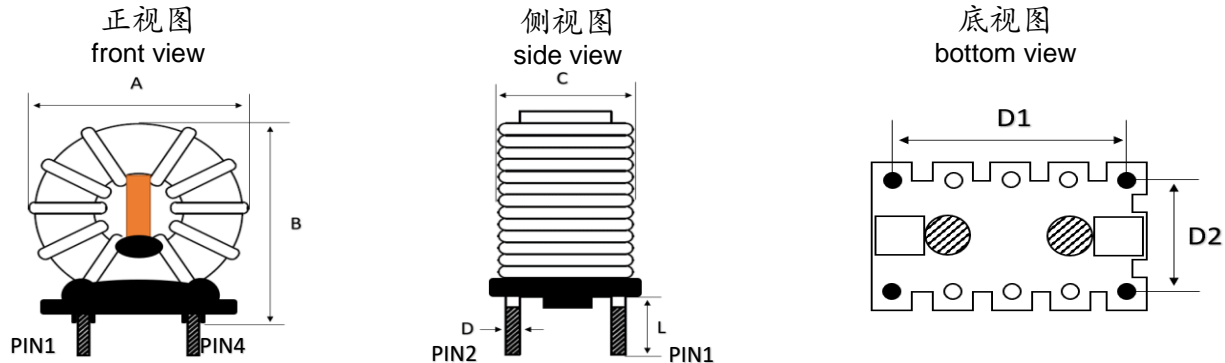




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產品系列 Series	共模电感	測試頻率 TEST FREQUENCY	1KHZ / 0.3V

### 封裝尺寸 (mm)

Dimension



系列	封裝尺寸 Dimension							MPQ
Series	A	B	C	D	D1	D2	L	pcs/盒
1386	17 Max	18 Max	9.6 Max	0.65±0.1	10.0 Ref	5.0 Ref	4.0 Min	300

### 編碼解釋

Code interpretation

<b>PDMCAT</b>	<b>1386</b>	<b>102</b>	<b>M</b>	<b>L</b>
類別碼	尺寸系列	感值	精度	立式
Category code	Dimension	Inductance	Tolerance	Vertical type

### 電氣參數

Electrical Characteristics

產品編碼 P/N	@ 25 °C Ambient Temperature					
	感值 Inductance	精度 Tolerance	DCR	額定電流 rated current	耐壓 HI-P0T	
	N1/N2	N1/N2	mΩ	A	N1/N2	N1~C/N2~C
	mH	Min (mH)	Max	ΔT≈40°C	AC 1.5KV	AC1.5KV
PDMCAT1386-102ML	1	0.8	20	3	AC/60Hz 1mA 3Sec	AC/60Hz 1mA 3Sec
PDMCAT1386-222ML	2.2	1.8	30	3		
PDMCAT1386-472ML	4.7	4	70	2		
PDMCAT1386-103ML	10	8	140	1		
PDMCAT1386-153ML	15	12	180	1		
PDMCAT1386-203ML	20	16	230	1		

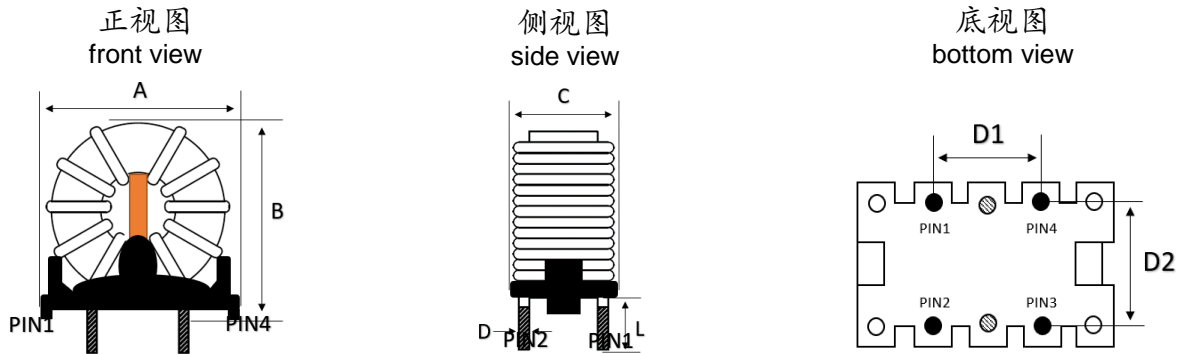
- ◎ 規格參數基於環境溫度25°C取得  
All test Data is referenced to 25°C ambient
- ◎ 電感工作環境溫度：-40°C ~ 105°C  
Operating temperature range -40 °C to +105 °C
- ◎ 加載額定電流會使電感溫度上升大約 40°C (電感初始溫度+上升溫度=電感最終溫度)  
Typical rated currentt would cause an approximately ΔT of 40°C
- ◎ 務必考慮最終的產品設計，元器件佈局，線路板走線，以及使用環境過程中，電感最終溫度不得超過105°C  
The operating temperature of inductance do not exceed 105°C
- ◎ 使用電感時，請查閱第9頁注意事項  
The announcements is on page 10





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產品系列 Series	共模电感	測試頻率 TEST FREQUENCY	1KHZ / 0.3V

### 封裝尺寸 Dimension (mm)



系列	封裝尺寸 Dimension							MPQ
Series	A	B	C	D	D1	D2	L	pcs/盒
16128	22 Max	22 Max	14 Max	1.0±0.2	7.5 Ref	9.0 Ref	5.0 Min	180

### 編碼解釋

Code interpretation

<b>PDMCAT</b>	<b>16128</b>	<b>102</b>	<b>M</b>	<b>L</b>	<b>B</b>
類別碼	尺寸系列	感值	精度	立式	帶底座
Category code	Dimension	Inductance	Tolerance	Vertical type	Base

### 電氣參數

Electrical Characteristics

產品編碼 P/N	@ 25 °C Ambient Temperature					
	感值 Inductance	精度 Tolerance	DCR	額定電流 rated current	耐壓 HI-POT	
	N1/N2	N1/N2	mΩ	A	N1/N2	N1~C/N2~C
	mH	Min (mH)	Max	ΔT≈40°C	AC 1.5KV	AC1.5KV
PDMCAT16128-102MLB	1	0.8	14	9	AC/60Hz 1mA 3Sec	AC/60Hz 1mA 3Sec
PDMCAT16128-202MLB	2	1.8	25	6		
PDMCAT16128-502MLB	5	4.5	40	5		
PDMCAT16128-103MLB	10	9	60	3.5		
PDMCAT16128-153MLB	15	13.5	80	3		
PDMCAT16128-203MLB	20	18	130	2.5		

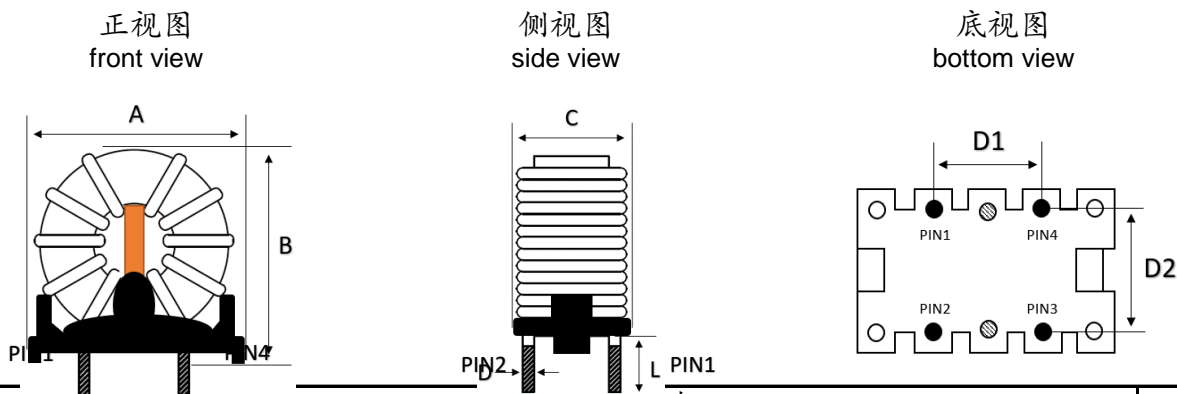
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All test Data is referenced to 25°C ambient
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Operating temperature range -40 °C to +105 °C
- ◎ 加載額定電流會使電感溫度上升大約 40°C (電感初始溫度+上升溫度=電感最終溫度)  
Typical rated currentt would cause an approximately ΔT of 40°C
- ◎ 務必考慮最終的產品設計，元器件佈局，線路板走線，以及使用環境過程中，電感最終溫度不得超過105°C  
The operating temperature of inductance do not exceed 105°C
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產品編碼 P/N	PDMCAT1386-221413series	測試設備 TEST INSTRUMENT	Keysight:E4991B Chroma:16502 3302
產品系列 Series	共模电感	測試頻率 TEST FREQUENCY	1KHZ / 0.3V

封裝尺寸 (mm)  
Dimension



系列	封裝尺寸 Dimension							MPQ
Series	A	B	C	D	D1	D2	L	pcs/盒
18107	23 Max	24 Max	15 Max	1.0±0.2	7.5±0.5	9.0±0.5	4.0 Min	152

編碼解釋

Code interpretation

<b>PDMCAT</b> 類別碼 Category code	<b>18107</b> 尺寸系列 Dimension	<b>102</b> 感值 Inductance	<b>M</b> 精度 Tolerance	<b>L</b> 立式 Vertical type	<b>B</b> 帶底座 Base
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電氣參數

Electrical Characteristics

產品編碼 P/N	@ 25 °C Ambient Temperture					
	感值 Inductance	精度 Tolerance	DCR	額定電流 rated current	耐壓 HI-POT	
	N1/N2 mH	N1/N2 Min (mH)	mΩ Max	A ΔT≈40°C	N1/N2 AC 1.5KV	N1~C/N2~C AC1.5KV
PDMCAT18107-102MLB	1	0.9	9	10	AC/60Hz 1mA 3Sec	AC/60Hz 1mA 3Sec
PDMCAT18107-202MLB	2	1.8	16	8		
PDMCAT18107-502MLB	5	4.5	30	6		
PDMCAT18107-103MLB	10	9	60	4.5		
PDMCAT18107-153MLB	15	13.5	80	3.5		
PDMCAT18107-203MLB	20	18	100	3		
PDMCAT18107-303MLB	30	27	150	2.5		

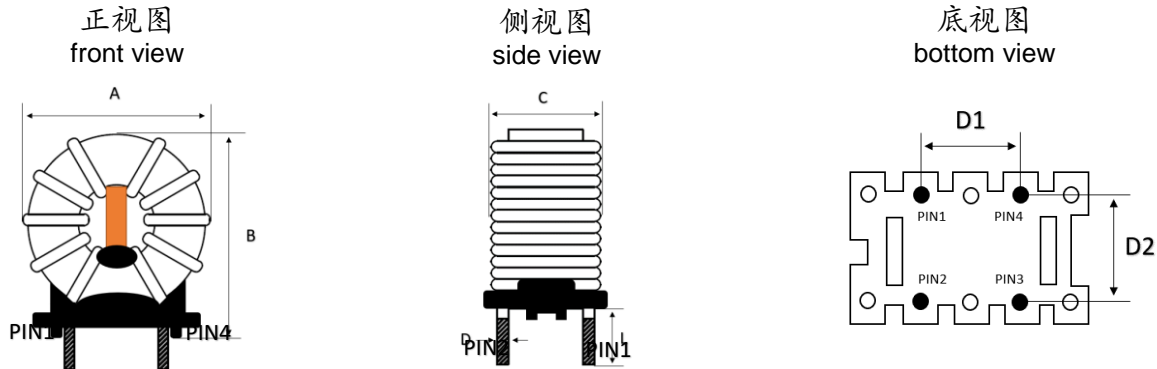
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All test Data is referenced to 25°C ambient
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Typical rated currentt would cause an approximately ΔT of 40°C
- ◎ 務必考慮最終的產品設計，元器件佈局，線路板走線，以及使用環境過程中，電感最終溫度不得超過105°C  
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產品系列 Series	共模电感	測試頻率 TEST FREQUENCY	1KHZ / 0.3V

### 封裝尺寸 Dimension (mm)



系列	封裝尺寸 Dimension							MPQ
Series	A	B	C	D	D1	D2	L	pcs/盒
221413	28 Max	31 Max	18.5 Max	1.0±0.2	10.0±0.5	12.0±0.5	4.0 Min	96

### 編碼解釋

Code interpretation

<b>PDMCAT</b>	<b>221413</b>	<b>102</b>	<b>M</b>	<b>L</b>	<b>B</b>
類別碼	尺寸系列	感值	精度	立式	帶底座
Category code	Dimension	Inductance	Tolerance	Vertical type	Base

### 電氣參數

Electrical Characteristics

產品編碼 P/N	@ 25 °C Ambient Temperature					
	感值 Inductance	精度 Tolerance	DCR	額定電流 rated current	耐壓 HI-P0T	
	N1/N2	N1/N2	mΩ	A	N1/N2	N1~C/N2~C
	mH	Min (mH)	Max	ΔT≈40°C	AC 1.5KV	AC1.5KV
PDMCAT221413-102MLB	1	0.8	10	17	AC/60Hz 1mA 3Sec	AC/60Hz 1mA 3Sec
PDMCAT221413-202MLB	2	1.6	15	14		
PDMCAT221413-502MLB	5	4	28	9.5		
PDMCAT221413-103MLB	10	8	55	7		
PDMCAT221413-203MLB	20	16	100	4.5		
PDMCAT221413-303MLB	30	27	120	4		

- ◎ 規格參數基於環境溫度25°C取得  
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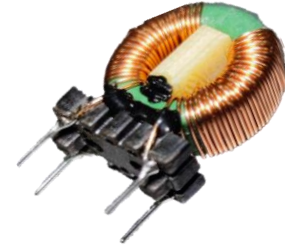
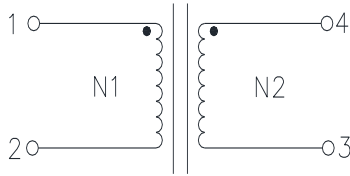




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產品系列 Series	共模电感	測試頻率 TEST FREQUENCY	1KHZ / 0.3V

### 電路結構

#### Connections



- ◎ 电感内置两组线圈  
Inductor Contents Two (2) Set(s) of Coil

- ◎ 电感使用3.0mm隔板，符合UL508隔离要求  
used epoxy board 3.0mm, Up to UL508 rule
- ◎ 查看电感铜线线径请联系谱罗德索取单颗规格书  
To check the diameter of copper wire, please contact PROD

### 內部構造

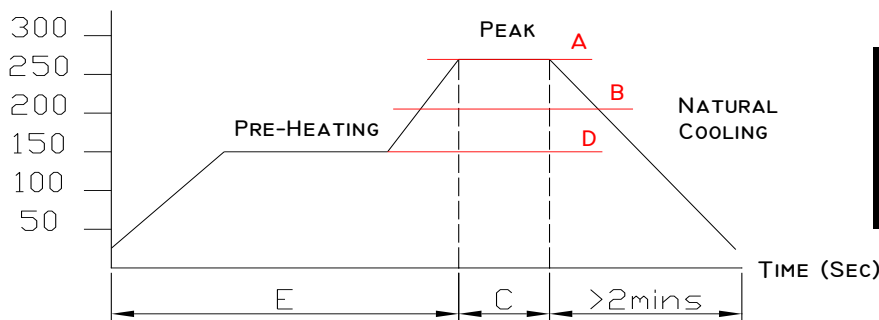
#### Internal Structure

NO.	材料 ITEM	材質規格 Material	製造商 Manufacturer	UL NO.
1	磁芯/Core	T1386 /16128/18108/221413	YUFENG (或等同廠商規格)	N.A
2	漆包線/Wire	2UEW+F 155°C	PACIFIC (或等同廠商規格)	N.A
3	隔板/Partition	T=3.0mm	SUNSHINE (或等同廠商規格)	N.A
3	底座/Base	13x7/22x12/24x17	YANGYU (或等同廠商規格)	N.A
4	助焊剂/Flux	LD-007	LEDA (或等同廠商規格)	N.A
5	锡条/Sn	LEAD FREE SOLDER	CHEGNAN (或等同廠商規格)	N.A
6	凡立水/Varnish	C-2020 T-30	TAL CHEMICAL (或等同廠商規格)	N.A

### 焊接溫度 (推荐)

#### Recommended Soldering Temperature Graph

TEMPERATURE (°C)



A	260°C
B	230°C
C	10 Sec
D	150°C
E	60~240 Sec



包装  
PACKING



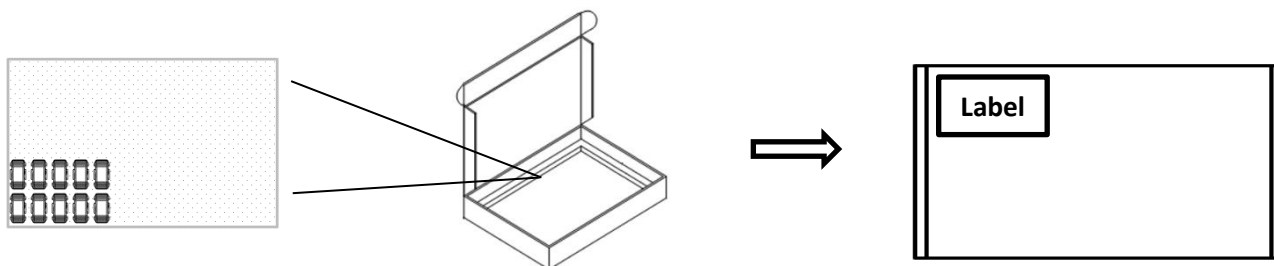
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產品系列 Series	共模电感	測試頻率 TEST FREQUENCY	1KHZ / 0.3V

内盒包装  
MPQ packaging

珍珠棉  
pearl wool

内盒  
inner box

内盒  
inner box



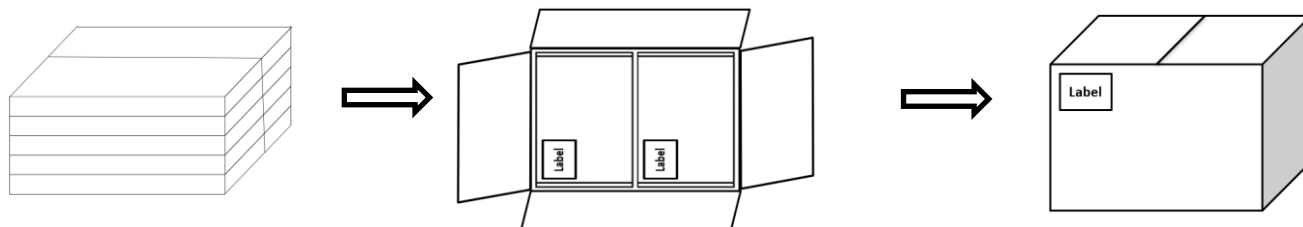
系列 series	1386	16128	18107	221413
MPQ	300 Pcs	180 Pcs	152 Pcs	96 Pcs

外箱  
full container load

内盒  
inner box

整箱  
full container load

整箱  
full container load



整箱数量  
full container load

系列	1386	16128	18107	221413
装箱数量 package quantity	3000pcs	1800pcs	1520pcs	960pcs







## 注意事項

使用本產品時，請注意以下事項

- ◎ 產品保存期限為12個月，保存條件：溫度5~40℃，濕度10~75%RH以內，超過保存期限可能會使產品端子電極發生氧化。
- ◎ 請勿在極端環境下使用和保存（高鹽，強酸，強鹼，強輻射等）。
- ◎ 產品焊接前，請進行預熱；預熱溫度與焊接溫度之間溫差建議控制在150℃以內。
- ◎ 產品焊接後需重新拆卸焊接修正時，請遵循規格書規定的條件範圍；過高的加熱溫度以及反復的拆卸可能會導致產品失效。
- ◎ 產品請勿接觸清洗劑，酒精等液體，這會侵蝕產品本體，從而導致產品失效。
- ◎ 產品焊接到線路板後，請注意不可因線路板整體變形或局部變形而施加給電感剩餘應力，這可能會導致電感發生破裂，脫落，以致失效。
- ◎ 產品通電後溫度會隨電流的增大而上升，設計時請務必考慮留有餘量。
- ◎ 過高的靜電會對產品產生永久性損害，請注意靜電防護。
- ◎ 產品通電過程請勿觸摸產品任何部位，防止觸電。
- ◎ 本產品作為磁性產品，設計時請務必考慮周邊元器件與本產品可能產生的相互影響。
- ◎ 本產品適用於一般電子設備，如：AV設備，通信設備，家電產品，娛樂設備，電腦設備，個人設備，辦公設備，計測設備，工業機器人等。且該一般電子設備需在常規的操作和使用方法環境下使用。對於需要高度安全性和可靠性的，或者因本產品失效造成設備故障，誤操作，運轉不良等危及到人的生命身體及財產安全，以及對社會產生較大不良影響的特殊用途，設計使用前務必同本公司溝通，設計使用者如在未取得我司書面同意狀況下使用造成任何後果，我司不予承擔。特殊用途包含但不限定如下清單：
  - 1 軍用設備
  - 2 運輸設備（汽車，軌道交通產品，船舶等）
  - 3 航空，航太設備
  - 4 發電控制設備
  - 5 核動力相關設備
  - 6 爆炸引燃控制設備
  - 7 交通控制設備
  - 8 關係到國防安全的設備
  - 9 其他被認定為特殊用途的設備





## ANNOUNCEMENTS

Please read this before using the product.

- © The product storage life is 12 months, Storage Temperature: TEMP.5~40°C; RH10%~75%. Please use the product within the warranty period
- © Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, radiation etc.) .
- © Before soldering, be sure to preheat components:The preheating temperature should be set so that The temperature difference between the solder temperature and chip temperature does not exceed 150° C.
- © Soldering corrections after mounting should be within the range of the conditions determined in the specifications. If overheated, a short circuit, performance deterioration, or lifespan shortening may occur. Repeated disassembly may invalidate the inductance
- © The cleaning agent can not be used for these products. This may corrode the inductor
- © When embedding a printed circuit board where a chip is mounted to a set, be sure that residual stress is not given to the chip due to the overall distortion of the printed circuit board and partial distortion such as at screw tightening portions.
- © Self heating (Rated Current or Irms) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- © Too high static electricity will cause permanent damage to the product, please pay attention to electrostatic protection.
- © As a magnetic product, the design must consider the possible interaction between peripheral components and the product.
- © 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.  
If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please contact PROD. Otherwise, PROD will not bear the serious consequences caused by product quality problems

- |  |   |
|--|---|
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| 3 Aerospace/aviation equipment                         |   |
| 4 Power-generation control equipment                   |   |
| 5 Atomic energy-related equipment                      |   |
| 6 Explosive ignition control equipment                 |   |
| 7 Transportation control equipment                     |   |



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