A3.0

制品规格书
SPECIFICATION FOR APPROVAL

产品编码 P/N	PSPMAA0412~2213 Series	测试设备 TEST INSTRUMENT	Chroma 3302 16502
产品系列 Series	一体成型电感	测试频率 TEST FREQUENCY	100KHZ/1V

谱罗德制作发行

客户名称 Customer	:	
客户编码 Customer P/N	:	
产品系列 Series	:	一体成型电感 SMD Molding power Inductor
产品编码 Supplly P/N	:	PSPMAA0412~2213 Series
发版号 Version	:	A3.0
承认日期 Endorsement Date	:	2026-6-8
备注 Note	:	

谱罗德电子科技（深圳）有限公司 PuLuoDe Electronic Technology (Shenzhen) Co. LTD	
制作 APPROVED	Ben
审查 CHECKED	Yuki
确认 PREPARED	Peter

客户承认 Customer Approval

客户签章

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修订记录
REVISION RECORD

产品编码 P/N	PSPMAA0412~2213 Series	测试设备 TEST INSTRUMENT	Chroma 3302 16502
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Version	REVISON ITEM	BEFORE REVISON	AFTER REVISON	DATE
A3.0	First Version			2026-6-8

谱罗德制作发行

封装尺寸
Dimension

产品编码 P/N	**PSPMAA0412~2213 Series**	测试设备 TEST INSTRUMENT	**Chroma 3302 16502**
产品系列 Series	**一体成型电感**	测试频率 TEST FREQUENCY	**100KHZ/1V**

产品特点
Features

- ¤ 更低的直流阻抗（DCR），更高的额定电流
  Low DCR High rated current
- ¤ 一体式结构有效避免电感啸叫
  No gap structure to avoid inductor noise
- ¤ 闭磁结构有效降低电磁干扰
  Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI)
- ¤ 超小超薄的结构减少PCB的占用面积
  Takes up less PCB real estate and save more power

编码解释
Code interpretation

PSPMAA	XXXX	-	XXX	M	-	ANP
类别码	尺寸系列		系列码	公差		标识码
Category code	**Dimension**		**Inductance**	**Tolerance**		**Other's code**

© 规格参数基于环境温度25℃取得
All test Data is referenced to 25℃ ambient

© 电感工作环境温度：-40℃ ~ 125℃
Operating temperature range -40 °C to +125 °C

© 加载温升电流（Irms）会使电感温度上升大约 40℃ (电感初始温度+上升温度=电感最终温度)
Typical Irms would cause an approximately △T of 40℃

© 加载饱和电流（ISAT）会使感量下降大约30%
Typical ISAT would cause Lo to drop approximately 30%.

© 请从温升电流（IRMS）和饱和电流（ISAT）中选取一个最小值作为额定电流
Choose a minimum of IRMS and ISAT as the rated current

© 务必考虑最终的产品设计，元器件布局，线路板走线，以及使用环境过程中，电感最终温度不得超过125℃
The operating temperature of inductance do not exceed 125℃

© 使用电感时，请查阅第最后页注意事项
The announcements is on last page

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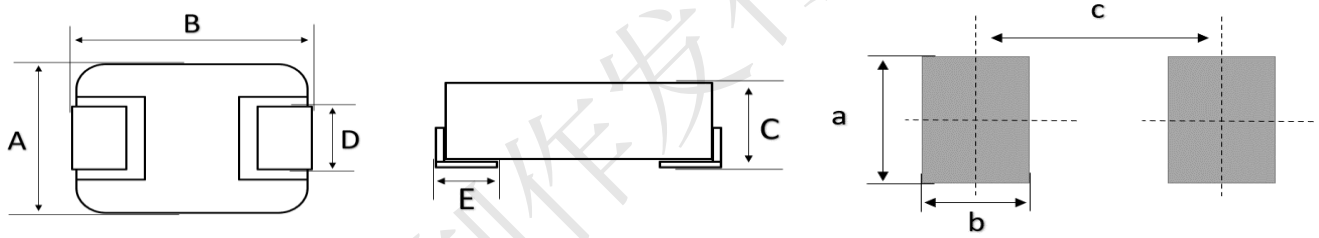
电气特性
ELECTRICAL CHARACTERISTICS

产品编码 P/N	PSPMAA0412~2213 Series	测试设备 TEST INSTRUMENT	Chroma 3302 16502
产品系列 Series	一体成型电感	测试频率 TEST FREQUENCY	100KHZ/1V

封装尺寸 Dimension (mm)



系列 Series	封装尺寸 Dimension					焊盘尺寸 Land Pattern		
	A	B	C	D	E	a	b	c
063H	6.6±0.3	7.1±0.3	3.2MAX	3.0±0.5	1.6±0.5	3.5Typ	2.1Typ	5.8Typ

063H Series

产品编码 P/N	@ 25 ℃ Ambient Temperture					
	感值 Inductance	公差 Tolerance	DCR mΩ		温升电流 (IRMS) A	饱和电流 (ISAT) A
	μH	±	Typ	Max	△T≈40℃	L0 drop≈30%
PSPMAA063H-1R0M-ANP	1.0	20%	6.0	7.2	13.0	20.0
PSPMAA063H-1R2M-ANP	1.20	20%	6.0	7.2	13.0	20.0
PSPMAA063H-1R5M-ANP	1.5	20%	8.7	11.0	10.0	16.0
PSPMAA063H-2R2M-ANP	2.20	20%	10.2	13.0	10.0	12.0
PSPMAA063H-2R5M-ANP	2.50	20%	13.5	15.0	9.5	10.0
PSPMAA063H-3R3M-ANP	3.30	20%	14.5	16.5	9.0	11.0
PSPMAA063H-4R7M-ANP	4.7	20%	28.0	33.0	7.0	9.0
PSPMAA063H-5R6M-ANP	5.60	20%	34.0	42.0	5.5	7.0
PSPMAA063H-6R8M-ANP	6.8	20%	34.0	42.0	5.5	7.0
PSPMAA063H-8R2M-ANP	8.20	20%	62.0	66.0	5.0	7.0
PSPMAA063H-100M-ANP	10.00	20%	62.0	66.0	5.0	6.0
PSPMAA063H-150M-ANP	15.00	20%	110.0	125.0	3.5	3.5
PSPMAA063H-220M-ANP	22.00	20%	135.0	150.0	3.0	3.0
PSPMAA063H-330M-ANP	33.00	20%	190.0	210.0	2.7	3.0
PSPMAA063H-470M-ANP	47.00	20%	240.0	270.0	2.2	2.8

谱罗德制作发行

谱罗德电子科技（深圳）有限公司
PuLuoDe Electronic Technology (Shenzhen) Co., LTD
深圳市宝安区石岩三联工业区B栋311

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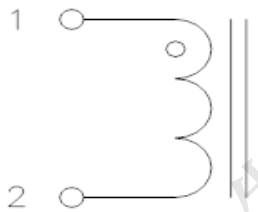
获取
https://www.prodtech.cn/

特性
CHARACTERISTICS

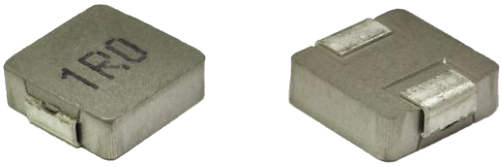
产品编码 P/N	PSPMAA0412~2213 Series	测试设备 TEST INSTRUMENT	Chroma 3302 16502
产品系列 Series	一体成型电感	测试频率 TEST FREQUENCY	100KHZ/1V

电路结构
Connections



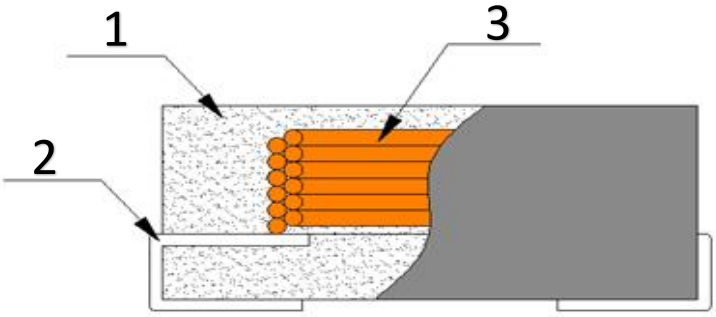
◎ 电感内置一组线圈
Inductor Contents one (1) Set(s) of Coil

实物图示
Picture



◎ 电感顶部喷码黑色感值代码
The inductance code is on the top,black

产品结构
Product Structure



1: 磁芯 / Core

2: 电极 / Electrode

3: 线圈 / coil

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组件与焊接
Parts and Soldering Profile

产品编码 P/N	PSPMAA0412~2213 Series	测试设备 TEST INSTRUMENT	Chroma 3302 16502
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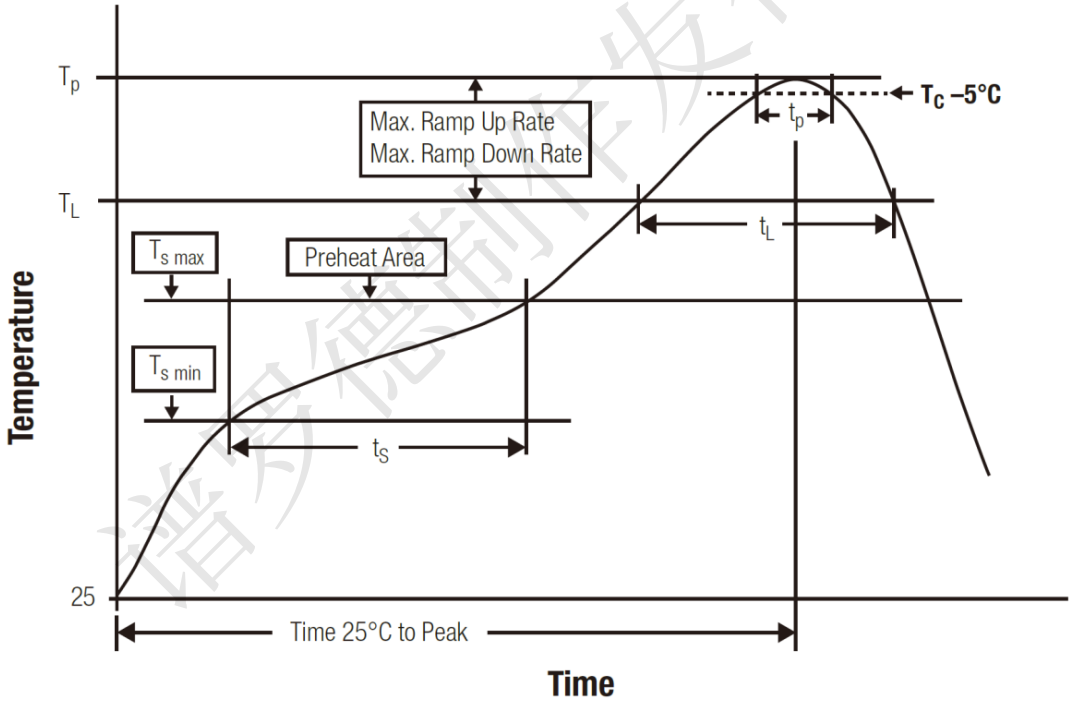
焊接温度（推荐）
Recommended Classification Wave Soldering Profile



Classification Reflow Soldering Profile:

Profile Feature	Item	Value
Preheat Temperature Min	**Ts min**	150 °C
Preheat Temperature Max	**Ts max**	200 °C
Preheat Time ts from Ts min to Ts max	**ts**	60 - 120 seconds
Ramp-up Rate (TL to TP)		3 °C/ second max.
Liquidous Temperature	**TL**	217 °C
Time tL maintained above TL	**tL**	60 - 150 seconds
Peak package body temperature	**Tp**	Tp <=Tc, see Table below
Time within 5°C of actual peaktemperature	**t p**	20 - 30 seconds
Ramp-down Rate (TP to TL)		6 °C/ second max.
Time 25°C to peak temperature		8 minutes max.

Package Classification Reflow Temperature (Tc):

Properties	Volume mm³ <350	Volume mm³ 350-2000	Volume mm³ >2000
PB-Free Assembly | Package Thickness < 1.6 mm	260°C	260°C	260℃
PB-Free Assembly | Package Thickness 1.6 mm - 2.5 mm	260°C	250°C	245℃
PB-Free Assembly | Package Thickness > 2.5 mm	250°C	245°C	245℃

＊ 参考标准：IPC/ JEDEC J-STD-020E　refer standard to: IPC/ JEDEC J-STD-020E

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信赖性实验
RELIABILITY TEST

产品编码 P/N	PSPMAA0412~2213 Series	测试设备 TEST INSTRUMENT	Chroma 3302 16502
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机械可靠性测试
Mechanical Reliability

实验名称 ITEM	试验要求 Specification & Requirement	试验方法 Method Used
可焊性实验 Solderability	The surface of terminal/pin tested shall be covered with new solder by 95%	Solder heat proof: Preheating: 180 ±10℃ 90 seconds Soldering: 255 ±5℃ for 3 ±1 sec
机械冲击 Shock	Inductance change within ± 5% Without mechanical damage SMD Molding Ind	Drop down with 981m/s2 (100G) shock Attitude upon a rubber block method shock testing machinem, 3 tests.
振动实验 Vibration	Inductance change within ± 5% Without mechanical damage	Vibration frequency: 10Hz to 55Hz to 10Hz 60 seconds cycle Vibration time: 2 hours

老化测试
Aging Reliability

实验名称 ITEM	试验要求 Specification & Requirement	试验方法 Method Used
冷热冲击 Thermal Shock	Inductance change within ± 5% Without mechanical damage	-55℃, (30 mins) -> room temp. (5 mins) -> 125℃, (30 mins) -> room temp. (5 mins) 100 cycles
耐热性 Heat Resistance	Inductance change within ± 5% Without mechanical damage	Apply IDC current @ 85℃ ambient Duration: 1000 hrs
耐湿性 Humidity Resistance	Inductance change within ± 5% Without mechanical damage	Apply IDC current @ 60℃ ambient Humidity: 90~95% Duration: 1000 hrs
低温存储实验 Low Temp. Storing	Inductance change within ± 5% Without mechanical damage	Storing Temp. -55 ±2 ℃ for total 1,000 +4/-0 hours
高温存储实验 High Temp. Storing	Inductance change within ± 5% Without mechanical damage	Storing Temp. 125 ±2 ℃ for total 1,000 +4/-0 hours

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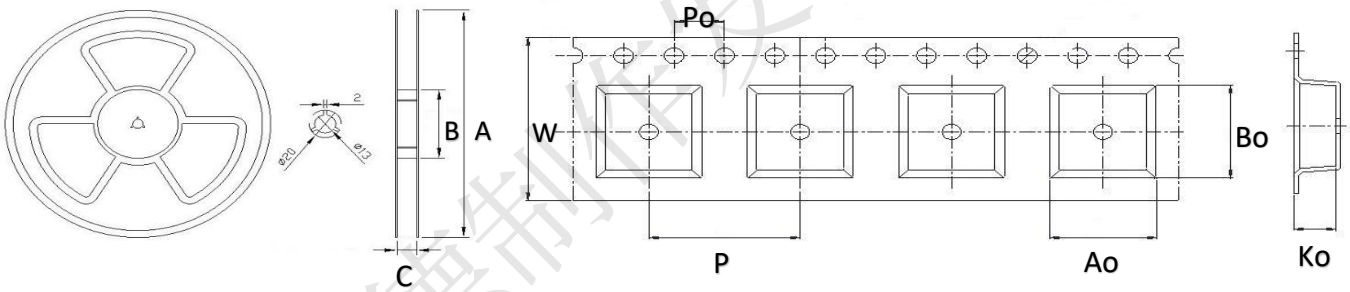
包装方式
PACKING FOR SMD

产品编码 P/N	PSPMAA0412~2213 Series	测试设备 TEST INSTRUMENT	Chroma 3302 16502
产品系列 Series	一体成型电感	测试频率 TEST FREQUENCY	100KHZ/1V

载带卷盘尺寸：(mm)

Packing Dimension



系列 Series	A	B	C	W	P	Po	Ao	Bo	Ko
0412	330	100	12	12	8	4	4.3 Typ	4.7 Typ	1.8 Typ
0402	330	100	12	12	8	4	4.6 Typ	4.75 Typ	2.2 Typ
0518	330	100	12.5	12	8	4	5.7 Typ	5.9 Typ	2.2 Typ
0502	330	100	12.5	12	8	4	5.7 Typ	5.9 Typ	2.3 Typ
0503	330	100	12.5	12	8	4	5.7 Typ	5.9 Typ	3.6 Typ
0610	330	100	17	16	12	4	6.4 Typ	6.5 Typ	1.1 Typ
0618	330	100	17	16	12	4	6.9 Typ	7.6 Typ	2.0 Typ
0602	330	100	17	16	12	4	6.9 Typ	7.6 Typ	2.2 Typ
0624	330	100	17	16	12	4	6.9 Typ	7.6 Typ	3.0 Typ
0603/063T/H	330	100	17	16	12	4	6.9 Typ	7.6 Typ	3.2 Typ
0604	330	100	17	16	12	4	6.9 Typ	7.6 Typ	4.2 Typ
0605	330	100	17	16	12	4	6.9 Typ	7.6 Typ	5.4 Typ
0803	330	100	17	16	12	4	8.6 Typ	9.5 Typ	3.4 Typ
0805	330	100	17	16	12	4	8.6 Typ	9.5 Typ	5.4 Typ
0805	330	100	17	16	12	4	8.6 Typ	9.5 Typ	6.4 Typ
1030	330	100	25	24	16	4	11 Typ	12.6 Typ	3.2 Typ
1040	330	100	25	24	16	4	11 Typ	12.6 Typ	4.2 Typ
1045	330	100	25	24	16	4	11 Typ	12.6 Typ	5.0 Typ
1050	330	100	25	24	16	4	11 Typ	12.6 Typ	5.3 Typ
1250	330	100	25	24	20	4	13.1 Typ	15 Typ	5.3 Typ
1265	330	100	25	24	20	4	13.1 Typ	15 Typ	6.7 Typ
1275	330	100	25	24	20	4	13.1 Typ	15 Typ	7.8 Typ
1770	330	100	32	32	24	4	17.7 Typ	19.4 Typ	7.9 Typ
2213	330	100	44	44	32	4	22.5 Typ	23 Typ	13.6 Typ

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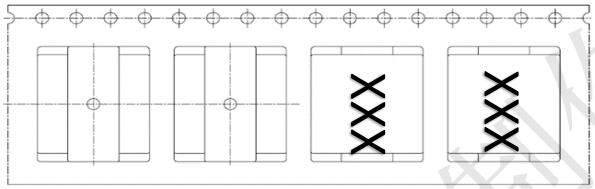
包装方式
PACKING FOR SMD

产品编码 P/N	**PSPMAA0412~2213 Series**	测试设备 TEST INSTRUMENT	**Chroma 3302 16502**
产品系列 Series	**一体成型电感**	测试频率 TEST FREQUENCY	**100KHZ/1V**

载带内产品排列方式：
Inductance Packing Method

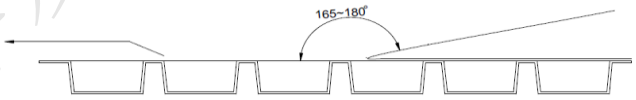
首字对孔

The first mark is on the side of the gear hole



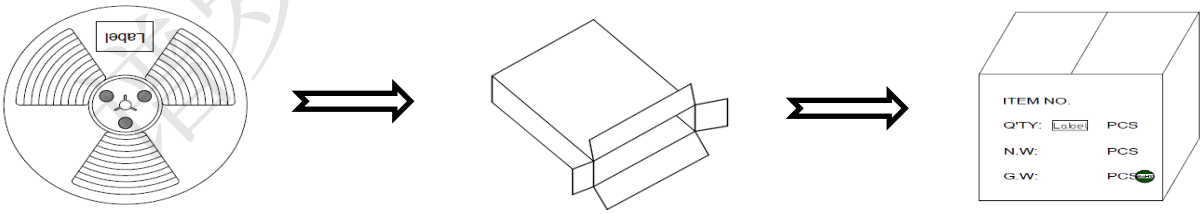
载带剥离力：
Typical Pulling Force

20~120 gf



装箱数量：
Package Quantity

卷盘 MPQ　　内盒 Middle box　　外箱 Outer box



系列 Series	卷盘 MPQ	内盒 Middle box	外箱 Outer box
0412	3000pcs	9000pcs	36000pcs
0402	2000pcs	6000pcs	24000pcs
0518	2000pcs	6000pcs	24000pcs
0502	2000pcs	6000pcs	24000pcs
0503	2000pcs	6000pcs	24000pcs
0618	2000pcs	6000pcs	24000pcs
0602	2000pcs	6000pcs	24000pcs
0624	1000pcs	3000pcs	9000pcs
0603/063T/063H	1000pcs	3000pcs	9000pcs
0604	1000pcs	3000pcs	9000pcs
0605	1000pcs	3000pcs	9000pcs
0803	1000pcs	3000pcs	9000pcs
0805	1000pcs	3000pcs	9000pcs
0806	800pcs	2400pcs	7200pcs
1030	800pcs	1600pcs	4800pcs
1040	800pcs	1600pcs	4800pcs
1045	800pcs	1600pcs	4800pcs
1050	800pcs	1600pcs	4800pcs
1250	500pcs	1000pcs	3000pcs
1265	500pcs	1000pcs	3000pcs
1275	500pcs	1000pcs	3000pcs
1770	300pcs	600pcs	2400pcs
2213	100pcs	100pcs	400pcs

谱罗德制作发行

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注意事项

使用本产品时，请注意以下事项

© 产品保存期限为12个月，保存条件：温度5~40℃，湿度10~75%RH以内，超过保存期限可能会使元器件电极发生氧化，存储标准可参照：IEC_61760-2-2021

This components storage life is 12 months, Storage Temperature: TEMP.5~40℃; RH10%~75%. Please use this components within the warranty period. refer standard to: IEC_61760-2-2021

© 请勿在极端环境下使用和保存（高盐，强酸，强碱，强辐射等）。

Do not use this component in special environments, such as high salt content, strong acid, strong alkali, strong corrosion and other special environments.

© 焊接前请先预热,预热与焊接温度之间温差建议控制在150℃以内;焊接标准参考：IPC/ JEDEC J-STD-020E

Please preheat the product before welding; it is recommended to control the preheating temperature and welding temperature within 150℃. refer standard to: IPC/ JEDEC J-STD-020E

© 元器件焊接后需重新拆卸焊接修正时，请遵循规格书规定的条件范围；过高的加热温度以及反复的拆卸可能会导致元器件失效。

When repairing this component, the temperature used for disassembly should not exceed the datasheet limit and do not disassemble it frequently to prevent damage to the component.

© 请勿用清洗剂、丙酮等腐蚀性液体接触该元器件，这可能会侵蚀元器件本体以至于失效。

Do not use acetone or other corrosive liquids to contact this component or it will cause it to fail.

© 元器件焊接到线路板后，请注意不可因线路板整体变形或局部变形而施加给电感剩余应力，这可能会导致元器件脱落、破损失效。

When this component is soldered to the circuit board, you need to pay attention to the stress applied to it by the PCB, which may cause it to fall off or damaged fail.

© 元器件通电后温度会随电流的增大而上升，设计时请务必考虑留有余量。

Self heating (Rated Current or Irms) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.

© 过高的静电会损坏该元器件，请注意静电防护。

Too high static electricity will cause permanent damage to the product, please pay attention to electrostatic protection.

© 本元器件作为磁性产品，设计时请务必考虑周边元器件与本产品可能产生的耦合效应影响。

This magnetic component needs to be considered for coupling effects in the application.

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PROD cannot fully understand and be familiar with customers' specific applications and requirements. Your company has the responsibility and obligation to verify whether the components and the description in the component specification meet your design requirements.Special reminder: Even if operated in accordance with existing technical standards, this component still has a chance of failure before the end of its typical life. PROD strongly recommends that your company make appropriate redundant designs for possible failure situations of this component in some typical harsh applications, such as safety products, industrial products, medical products, automotive products, aviation/aerospace products, etc., so as to avoid serious consequences when the component fails.

PROD Requirements：For specific application item, PROD strongly requires your (or company) to obtain written permission from PROD, otherwise PROD will not bear any responsibility for component failure. Specific item list include but are not limited to: automotive, aerospace, safety products, military and products that your company has strict requirements on components.

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