蓝图微电 LANTU MICRO ELECTRIC

SPK Series Spike suppression coil

RoHS COMPLIANT



◆特征： Features:

- 低成本
- 具有高功率, 高饱和低电阻
- 非屏蔽功率电感
- 磁芯由 UL 热缩管包覆以提供优良的机械和环境保护
- 多种封装尺寸和宽电感范围
- 编带包装可用于自动插件
- 符合 RoHS,无卤和 REACH

- Low cost
- High power,High saturation ,Low resistance
- Unshielded power inductor
- Core is encapsulated by UL heat shrink tube to provide excellent mechanic and environmental protection
- Various package size and wide inductance range
- Tape packaging for auto-insertion
- RoHS, Halogen Free and REACH Compliance

◆用途： Applications:

- 电视和音响设备
- 通信设备
- 噪声滤波器
- 充电器,快充
- DC/DC 转换器

- TVs and Audio equipment
- Telecommunication devices
- Other noise filter
- Charger, fast charge
- DC/DC converters

◆环境： Environmental Data:

- 工作温度：-40℃ 至+125℃（包括线圈自身温升）

- Operating Temperature: -40℃ to +125℃ (Including coils self-temperature rise)

◆试验设备： Test Equipment:

- 电感值:HP4284A, HP4285A 或同等仪器
- 电流:HP4284+42841A 或同等仪器
- 自谐振频率: HM 9461 或同等仪器
- 品质因子: HP4285A 或同等仪器
- 直流电阻: Chroma 16502 或同等仪器

- L:HP4284A or HP4285A LCR meter or equivalent
- Isat & Irms: HP4284+42841A or equivalent
- SRF: HM 9461 or equivalent
- Q: HP4285A or equivalent
- DCR:Chroma 16502 or equivalent

◆产品型号： Product Identification:

SPK	0608	503	K	TF
①	②	③	④	⑤

①

类型 Type	
SPK	径向引线固定电感 Raial Leaded Fixed Inductors I

②

外形尺寸(L×W×H) (mm) External Dimensions (L×H) (mm)	
0608	7.0×11.0

③

Inductance
50 mH

④

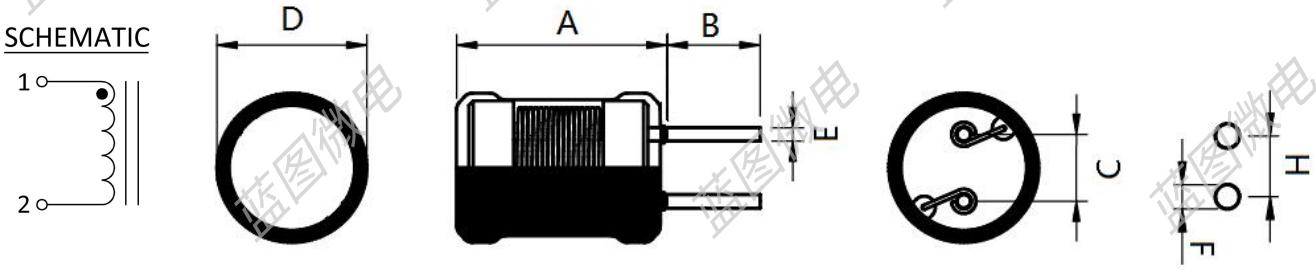
公差 Inductance Tolerance
J:±5%,K: ±10%, L: ±15% M: ±20%,P: ±25%, N: ±30%

⑤

包装 Packing	
B	散装 Bulk Package
TF	编带 Tape

◆外观尺寸：

Shape and Dimensions(dimensions are in mm)：



Marking is available if needed

如果需要，产品可印字

Reference holepattern

Part No	ITEM						
	A	B	C	D	E	F	H
SPK0406	8.0 Max	15.0 Min	2.0±0.5	5.0 Max	0.55±0.1	0.85	2.0
SPK0608	11.0 Max	15.0 Min	2.5±0.5	7.0 Max	0.65±0.1	0.95	2.5
SPK0707	9.5 Max	15.0 Min	5.0±1.0	8.0 Max	0.65±0.1	0.95	5.0
SPK0807	9.5 Max	15.0 Min	5.0±1.0	9.0 Max	0.65±0.1	0.95	5.0
SPK0810	13.0 Max	15.0 Min	5.0±1.0	9.0 Max	0.65±0.1	0.95	5.0
SPK0912	15.0 Max	15.0 Min	5.0±1.0	10.0 Max	0.80±0.1	1.1	5.0
SPK1010	13.0 Max	15.0 Min	5.0±1.0	12.0 Max	0.80±0.1	1.1	5.0
SPK1012	15.0 Max	15.0 Min	6.0±1.0	12.0 Max	0.80±0.1	1.1	6.0
SPK1016	19.0 Max	15.0 Min	6.0±1.0	12.0 Max	0.80±0.1	1.1	6.0
SPK1018	21.0 Max	15.0 Min	6.0±1.0	12.0 Max	0.80±0.1	1.1	6.0
SPK1213	16.0 Max	15.0 Min	7.5±1.0	14.0 Max	0.80±0.1	1.1	7.5

◆规格特性：　　**Specifications：**

● SPK0406 Series Electrical Characteristics (Electrical specifications at 25℃)

Part No	Inductance		Q		SRF	DCR	Rated Current
	L(μH) '@1KHz	Tole	Min	Test Freq.	(MHz) Min	(Ω) Max	(mA) Max
SPK0406-1R0M-□□	1.0	M	100	7.96MHZ	120	0.035	2000
SPK0406-1R2M-□□	1.2	M	100	7.96MHZ	120	0.058	1950
SPK0406-1R5M-□□	1.5	M	100	7.96MHZ	120	0.075	1900
SPK0406-1R8M-□□	1.8	M	100	7.96MHZ	120	0.110	1800
SPK0406-2R2M-□□	2.2	M	100	7.96MHZ	100	0.120	1750
SPK0406-2R7M-□□	2.7	M	100	7.96MHZ	80	0.125	1680
SPK0406-3R3M-□□	3.3	M	100	7.96MHZ	75	0.130	1500
SPK0406-3R9M-□□	3.9	M	100	7.96MHZ	70	0.135	1450
SPK0406-4R7M-□□	4.7	M	100	7.96MHZ	50	0.140	1320
SPK0406-5R6M-□□	5.6	M	100	7.96MHZ	45	0.145	1230
SPK0406-6R8M-□□	6.8	M	100	7.96MHZ	30	0.150	1150
SPK0406-8R2M-□□	8.2	M	100	7.96MHZ	22	0.160	1100
SPK0406-100M-□□	10	M	80	2.52MHZ	20	0.230	1000
SPK0406-120M-□□	12	M	80	2.52MHZ	17	0.240	970
SPK0406-150M-□□	15	M	80	2.52MHZ	16	0.250	920
SPK0406-180M-□□	18	M	80	2.52MHZ	12	0.330	860
SPK0406-220M-□□	22	M	80	2.52MHZ	10	0.450	800
SPK0406-270M-□□	27	M	80	2.52MHZ	9.5	0.500	710
SPK0406-330M-□□	33	M	80	2.52MHZ	8.7	0.700	660
SPK0406-390M-□□	39	M	70	2.52MHZ	8.2	0.740	600
SPK0406-470M-□□	47	M	70	2.52MHZ	7.8	0.760	550
SPK0406-560M-□□	56	M	50	2.52MHZ	7.6	0.800	500
SPK0406-680M-□□	68	M	50	2.52MHZ	6.8	0.900	470
SPK0406-820M-□□	82	M	50	2.52MHZ	6.0	0.950	430
SPK0406-101K-□□	100	K	45	796KHZ	6.0	1.000	400
SPK0406-121K-□□	120	K	45	796KHZ	5.5	1.100	370
SPK0406-151K-□□	150	K	65	796KHZ	4.2	1.300	350
SPK0406-181K-□□	180	K	65	796KHZ	3.6	1.500	320
SPK0406-221K-□□	220	K	65	796KHZ	2.8	1.800	300
SPK0406-271K-□□	270	K	50	796KHZ	2.4	1.900	275
SPK0406-331K-□□	330	K	50	796KHZ	2.2	2.200	250

Part No	Inductance		Q		SRF	DCR	Rated Current
	L(μH) '@1KHz	Tole	Min	Test Freq.	(MHz) Min	(Ω) Max	(mA) Max
SPK0406-391K-□□	390	K	50	796KHZ	2.0	2.700	220
SPK0406-471K-□□	470	K	50	796KHZ	1.7	3.600	200
SPK0406-561K-□□	560	K	50	796KHZ	1.5	4.200	190
SPK0406-681K-□□	680	K	50	796KHZ	1.3	4.600	170
SPK0406-821K-□□	820	K	50	796KHZ	1.1	5.700	155
SPK0406-122K-□□	1200	K	90	252KHZ	0.9	8.200	140
SPK0406-152K-□□	1500	K	80	252KHZ	0.8	13.000	120
SPK0406-182K-□□	1800	K	80	252KHZ	0.8	15.000	110
SPK0406-222K-□□	2200	K	80	252KHZ	0.8	17.000	100
SPK0406-272K-□□	2700	K	80	252KHZ	0.8	19.000	90
SPK0406-332K-□□	3300	K	70	252KHZ	0.7	26.000	83
SPK0406-392K-□□	3900	K	70	252KHZ	0.6	30.000	76
SPK0406-472K-□□	4700	K	65	252KHZ		45.000	70
SPK0406-562K-□□	5600	K	65	252KHZ		48.000	62
SPK0406-682K-□□	6800	K	65	252KHZ		56.000	56
SPK0406-822K-□□	8200	K	65	252KHZ		62.000	52
SPK0406-103K-□□	10000	K	45	79.6KHZ		72.000	47
SPK0406-153K-□□	15000	K	45	79.6KHZ		120.000	35
SPK0406-223K-□□	22000	K	45	79.6KHZ		160.000	24
SPK0406-253K-□□	25000	K	45	79.6KHZ		180.000	20

● SPK0608 Series Electrical Characteristics (Electrical specifications at 25℃)

Part No	Inductance		Q		SRF	DCR	Rated Current
	L(μH) '@1KHz	Tole	Min	Test Freq.	(MHz) Min	(Ω) Max	(mA) Max
SPK0608-3R3M-□□	3.3	M	20	7.96MHZ	40.0	0.016	3500
SPK0608-4R7M-□□	4.7	M	20	7.96MHZ	36.0	0.020	3000
SPK0608-6R8M-□□	6.8	M	20	7.96MHZ	32.0	0.022	2500
SPK0608-100M-□□	10	M	30	2.52MHZ	23.0	0.039	2000
SPK0608-150M-□□	15	M	30	2.52MHZ	19.0	0.045	1700
SPK0608-220M-□□	22	M	30	2.52MHZ	16.0	0.062	1400
SPK0608-330M-□□	33	M	30	2.52MHZ	11.0	0.100	1100
SPK0608-470M-□□	47	M	30	2.52MHZ	9.5	0.150	950

Part No	Inductance		Q		SRF	DCR	Rated Current
	L(μH) '@1KHz	Tole	Min	Test Freq.	(MHz) Min	(Ω) Max	(mA) Max
SPK0608-680M-□□	68	M	30	2.52MHZ	9.0	0.220	800
SPK0608-101K-□□	100	K	20	796KHZ	6.5	0.350	650
SPK0608-151K-□□	150	K	20	796KHZ	5.5	0.430	540
SPK0608-221K-□□	220	K	20	796KHZ	4.8	0.900	440
SPK0608-331K-□□	330	K	20	796KHZ	3.7	1.500	350
SPK0608-471K-□□	470	K	20	796KHZ	2.8	1.800	300
SPK0608-681K-□□	680	K	20	796KHZ	2.5	2.500	250
SPK0608-102K-□□	1000	K	100	252KHZ	2.1	3.200	200
SPK0608-122K-□□	1200	K	70	252KHZ		3.500	180
SPK0608-182K-□□	1800	K	70	252KHZ		5.000	155
SPK0608-222K-□□	2200	K	70	252KHZ		6.800	140
SPK0608-272K-□□	2700	K	70	252KHZ		7.200	125
SPK0608-332K-□□	3300	K	70	252KHZ		10.500	115
SPK0608-392K-□□	3900	K	70	252KHZ		11.700	105
SPK0608-472K-□□	4700	K	70	252KHZ		13.600	95
SPK0608-562K-□□	5600	K	70	252KHZ		16.600	85
SPK0608-682K-□□	6800	K	70	252KHZ		19.600	80
SPK0608-822K-□□	8200	K	70	252KHZ		25.200	70
SPK0608-103K-□□	10000	K	70	79.6KHZ		29.500	65
SPK0608-123K-□□	12000	K	50	79.6KHZ		33.800	60
SPK0608-153K-□□	15000	K	50	79.6KHZ		45.400	55
SPK0608-183K-□□	18000	K	50	79.6KHZ		50.400	50
SPK0608-203K-□□	20000	K	50	79.6KHZ		76.000	47
SPK0608-223K-□□	22000	K	50	79.6KHZ		80.000	45
SPK0608-303K-□□	30000	K	50	79.6KHZ		91.500	40
SPK0608-333K-□□	33000	K	50	79.6KHZ		98.500	35
SPK0608-393K-□□	39000	K	50	79.6KHZ		140.000	32
SPK0608-473K-□□	47000	K	50	79.6KHZ		160.000	30
SPK0608-503K-□□	50000	K	50	79.6KHZ		170.000	29
SPK0608-563K-□□	56000	K	50	79.6KHZ		250.000	28
SPK0608-683K-□□	68000	K	50	79.6KHZ		282.000	25
SPK0608-823K-□□	82000	K	50	79.6KHZ		312.000	23
SPK0608-104K-□□	100000	K	30	25.2KHZ		380.000	20
SPK0608-124K-□□	120000	K	30	25.2KHZ		430.000	18
SPK0608-154K-□□	150000	K	30	25.2KHZ		520.000	16

● SPK0707 Series Electrical Characteristics (Electrical specifications at 25℃)

Part No	Inductance		Q		SRF	DCR	Saturation Current	Temperature Rise Current
	L(μH) '@1KHz	Tole	Min	Test Freq.	(MHz) Min	(Ω) Max	(mA) Max	(mA) Max
SPK0707-1R0M-□□	1.0	M	10	7.96MHz	70	0.006	6600	5000
SPK0707-1R5M-□□	1.5	M	10	7.96MHz	56	0.008	5400	4300
SPK0707-2R2M-□□	2.2	M	10	7.96MHz	45	0.011	4000	3700
SPK0707-3R3M-□□	3.3	M	10	7.96MHz	35	0.018	3600	2900
SPK0707-4R7M-□□	4.7	M	10	7.96MHz	29	0.022	3100	2600
SPK0707-6R8M-□□	6.8	M	10	7.96MHz	24	0.028	2500	2300
SPK0707-100M-□□	10	M	20	2.52MHz	19	0.043	2100	1900
SPK0707-150M-□□	15	M	20	2.52MHz	15	0.056	1700	1600
SPK0707-220M-□□	22	M	20	2.52MHz	12	0.086	1400	1300
SPK0707-330M-□□	33	M	20	2.52MHz	9.4	0.140	1100	1000
SPK0707-470M-□□	47	M	20	2.52MHz	7.6	0.170	960	940
SPK0707-680M-□□	68	M	20	2.52MHz	6.2	0.280	790	730
SPK0707-101K-□□	100	K	20	7.96MHz	5.0	0.330	600	670
SPK0707-151K-□□	150	K	20	7.96MHz	4.0	0.560	530	520
SPK0707-221K-□□	220	K	20	7.96MHz	3.2	0.720	440	420
SPK0707-331K-□□	330	K	20	7.96MHz	2.5	1.100	360	330
SPK0707-471K-□□	470	K	20	7.96MHz	2.0	1.700	300	270
SPK0707-681K-□□	680	K	20	7.96MHz	1.7	2.300	210	260
SPK0707-102K-□□	1000	K	70	2.52MHz	1.3	4.300	200	190
SPK0707-152K-□□	1500	K	50	2.52MHz	1.3	5.000	170	160

● SPK0807 Series Electrical Characteristics (Electrical specifications at 25℃)

Part No	Inductance		Q		SRF	DCR	Saturation Current	Temperature Rise Current
	L(μH) '@1KHz	Tole	Min	Test Freq.	(MHz) Min	(Ω) Max	(mA) Max	(mA) Max
SPK0807-2R2M-□	2.2	M	10	7.96MHz	60	0.011	5500	4000
SPK0807-3R3M-□	3.3	M	10	7.96MHz	38	0.013	3800	3400
SPK0807-4R7M-□	4.7	M	10	7.96MHz	30	0.017	3700	3000
SPK0807-6R8M-□	6.8	M	10	7.96MHz	24	0.023	2800	2600
SPK0807-100M-□□	10	M	20	2.52MHz	19	0.031	2500	2200
SPK0807-150M-□□	15	M	20	2.52MHz	15	0.042	2000	1900
SPK0807-220M-□□	22	M	20	2.52MHz	12	0.070	1600	1500

Part No	Inductance		Q		SRF	DCR	Saturation Current	Temperature Rise Current
	L(μH) '@1KHz	Tole	Min	Test Freq.	(MHz) Min	(Ω) Max	(mA) Max	(mA) Max
SPK0807-330M-□□	33	M	20	2.52MHz	10	0.092	1300	1200
SPK0807-470M-□□	47	M	20	2.52MHz	8.2	0.130	1100	1000
SPK0807-680M-□□	68	M	20	2.52MHz	6.6	0.160	970	910
SPK0807-101K-□□	100	K	15	796KHz	5.4	0.230	810	750
SPK0807-151K-□□	150	K	15	796KHz	4.3	0.400	610	610
SPK0807-221K-□□	220	K	15	796KHz	3.5	0.530	530	500
SPK0807-331K-□□	330	K	15	796KHz	2.8	0.780	440	410
SPK0807-471K-□□	470	K	10	796KHz	2.3	1.000	390	330
SPK0807-681K-□□	680	K	10	796KHz	1.9	1.500	320	280
SPK0807-102K-□□	1000	K	20	252KHz	1.5	2.200	260	230
SPK0807-152K-□□	1500	K	30	252KHz	1.2	3.500	210	180

● SPK0810 Series Electrical Characteristics (Electrical specifications at 25℃)

Part No	Inductance		Q		SRF	DCR	Rated Current
	L(μH) '@1KHz	Tole	Min	Test Freq.	(MHz) Min	(Ω) Max	(mA) Max
SPK0810-3R3M-□□	3.3	M	30	7.96MHz	65	0.012	5000
SPK0810-3R9M-□□	3.9	M	30	7.96MHz	55	0.014	4600
SPK0810-4R7M-□□	4.7	M	30	7.96MHz	45	0.016	4300
SPK0810-5R6M-□□	5.6	M	30	7.96MHz	38	0.020	3900
SPK0810-6R8M-□□	6.8	M	30	7.96MHz	27	0.022	3700
SPK0810-8R2M-□□	8.2	M	30	7.96MHz	21	0.024	3500
SPK0810-100M-□□	10	M	50	2.52MHz	17	0.025	3200
SPK0810-120M-□□	12	M	50	2.52MHz	15	0.027	3000
SPK0810-150M-□□	15	M	50	2.52MHz	13	0.033	2800
SPK0810-180M-□□	18	M	50	2.52MHz	12	0.039	2600
SPK0810-220M-□□	22	M	50	2.52MHz	11	0.047	2400
SPK0810-270M-□□	27	M	50	2.52MHz	10	0.052	2100
SPK0810-330M-□□	33	M	50	2.52MHz	8.5	0.075	1900
SPK0810-390M-□□	39	M	40	2.52MHz	7.7	0.082	1700
SPK0810-470M-□□	47	M	40	2.52MHz	6.7	0.100	1500
SPK0810-560M-□□	56	M	40	2.52MHz	6.4	0.150	1300
SPK0810-680M-□□	68	M	30	2.52MHz	5.8	0.180	1200

Part No	Inductance		Q		SRF	DCR	Rated Current
	L(μH) @1KHz	Tole	Min	Test Freq.	(MHz) Min	(Ω) Max	(mA) Max
SPK0810-820M-□□	82	M	30	2.52MHz	5.2	0.200	1100
SPK0810-101K-□□	100	K	30	796KHz	4.4	0.200	900
SPK0810-121K-□□	120	K	30	796KHz	4.2	0.220	800
SPK0810-151K-□□	150	K	30	796KHz	3.7	0.240	720
SPK0810-181K-□□	180	K	30	796KHz	3.5	0.280	650
SPK0810-221K-□□	220	K	20	796KHz	3.3	0.350	600
SPK0810-271K-□□	270	K	20	796KHz	2.9	0.400	550
SPK0810-331K-□□	330	K	20	796KHz	2.6	0.470	500
SPK0810-391K-□□	390	K	20	796KHz	2.4	0.680	460
SPK0810-471K-□□	470	K	20	796KHz	2.2	0.800	420
SPK0810-561K-□□	560	K	20	796KHz	2.0	1.000	380
SPK0810-681K-□□	680	K	20	796KHz	1.8	1.200	350
SPK0810-821K-□□	820	K	20	796KHz	1.7	1.500	310
SPK0810-102K-□□	1000	K	40	252KHz	1.5	1.800	280
SPK0810-122K-□□	1200	K	40	252KHz	1.4	2.000	250
SPK0810-152K-□□	1500	K	40	252KHz	1.3	2.400	230
SPK0810-182K-□□	1800	K	40	252KHz	1.1	2.800	210
SPK0810-202K-□□	2000	K	40	252KHz	1.0	3.000	200
SPK0810-222K-□□	2200	K	40	252KHz	1.0	3.300	190
SPK0810-272K-□□	2700	K	40	252KHz	0.88	5.000	170
SPK0810-392K-□□	3900	K	40	252KHz	0.72	6.200	140
SPK0810-472K-□□	4700	K	40	252KHz	0.65	7.000	130
SPK0810-562K-□□	5600	K	40	252KHz	0.58	9.100	120
SPK0810-682K-□□	6800	K	40	252KHz	0.55	10.000	110
SPK0810-822K-□□	8200	K	20	252KHz	0.50	15.000	100
SPK0810-103K-□□	10000	K	20	79.6KHz	0.42	24.000	90
SPK0810-333K-□□	33000	K	60	79.6KHz	0.20	75.000	50
SPK0810-473K-□□	47000	K	60	79.6KHz	0.20	80.000	40
SPK0810-104K-□□	100000	K	20	79.6KHz	0.14	180.000	28

● SPK0912 Series Electrical Characteristics (Electrical specifications at 25℃)

Part No	Inductance		DCR	Rated Current
	L(μH) '@1KHz	Tole	(Ω) Max	(mA) Max
SPK0912-1R0M-□□	1.0	M	0.011	6000
SPK0912-1R5M-□□	1.5	M	0.012	6000
SPK0912-2R2M-□□	2.2	M	0.015	5300
SPK0912-3R3M-□□	3.3	M	0.017	4800
SPK0912-4R7M-□□	4.7	M	0.020	4500
SPK0912-6R8M-□□	6.8	M	0.025	4200
SPK0912-100M -□□	10	M	0.040	4000
SPK0912-120M -□□	12	M	0.045	3800
SPK0912-150M -□□	15	M	0.050	3500
SPK0912-180M -□□	18	M	0.060	3200
SPK0912-220M -□□	22	M	0.070	3000
SPK0912-270K -□□	27	K	0.100	2800
SPK0912-330K-□□	33	K	0.120	2500
SPK0912-390K-□□	39	K	0.120	2000
SPK0912-470K-□□	47	K	0.130	1900
SPK0912-560K-□□	56	K	0.140	1800
SPK0912-680K-□□	68	K	0.150	1700
SPK0912-820K-□□	82	K	0.160	1600
SPK0912-101K-□□	100	K	0.250	1500
SPK0912-121K-□□	120	K	0.280	1200
SPK0912-151K-□□	150	K	0.300	1000
SPK0912-181K-□□	180	K	0.450	700
SPK0912-221K-□□	220	K	0.500	600
SPK0912-271K-□□	270	K	0.650	500
SPK0912-331K-□□	330	K	0.850	450
SPK0912-391K-□□	390	K	0.950	400
SPK0912-471K-□□	470	K	1.100	350
SPK0912-561K-□□	560	K	1.200	300
SPK0912-681K-□□	680	K	1.300	250
SPK0912-821K-□□	820	K	1.500	200
SPK0912-102K-□□	1000	K	2.000	200

SPK0912-152K-□□	1500	K	2.300	180

Part No	Inductance		DCR	Rated Current
	L(μH) '@1KHz	Tole	(Ω) Max	(mA) Max
SPK0912-222K-□□	2200	K	4.500	150
SPK0912-332K-□□	3300	K	5.500	130
SPK0912-472K-□□	4700	K	7.200	120
SPK0912-682K-□□	6800	K	12.00	100
SPK0912-103K-□□	10000	K	16.00	90
SPK0912-153K-□□	15000	K	21.00	80
SPK0912-223K-□□	22000	K	33.00	70
SPK0912-333K-□□	33000	K	45.00	40

● SPK1010 Series Electrical Characteristics (Electrical specifications at 25℃)

Part No	Inductance		Q		SRF	DCR	Saturation Current	Temperature Rise Current
	L(μH) '@1KHz	Tole	Min	Test Freq.	(MHz) Min	(Ω) Max	(mA) Max	(mA) Max
SPK1010-3R3M-□□	3.3	M	10	7.96MHz	36	0.010	8800	5900
SPK1010-4R7M-□□	4.7	M	10	7.96MHz	28	0.015	7200	4800
SPK1010-6R8M-□□	6.8	M	10	7.96MHz	18	0.016	6700	4600
SPK1010-100M-□□	10	M	20	2.52MHz	16	0.025	5000	3700
SPK1010-150M-□□	15	M	20	2.52MHz	12	0.029	4200	3400
SPK1010-200M-□□	22	M	20	2.52MHz	9.5	0.040	3400	2900
SPK1010-330M-□□	33	M	20	2.52MHz	7.0	0.062	2800	3300
SPK1010-470M-□□	47	M	20	2.52MHz	5.8	0.075	2300	2100
SPK1010-680M-□□	68	M	20	2.52MHz	4.7	0.130	1900	1600
SPK1010-101K-□□	100	K	20	796KHz	3.8	0.160	1600	1400
SPK1010-151K-□□	150	K	20	796KHz	3.1	0.260	1300	1100
SPK1010-221K-□□	220	K	20	796KHz	2.5	0.330	1100	1000
SPK1010-331K-□□	330	K	20	796KHz	2.0	0.520	880	820
SPK1010-471K-□□	470	K	10	796KHz	1.6	0.660	750	720
SPK1010-681K-□□	680	K	10	796KHz	1.3	1.100	610	560
SPK1010-102K-□□	1000	K	20	252KHz	1.1	1.400	510	500
SPK1010-152K-□□	1500	K	30	252KHz	0.82	2.400	430	380
SPK1010-222K-□□	2200	K	20	252KHz	0.76	3.200	350	330

SPK1010-332K-□□	3300	K	30	252KHz	0.64	4.900	280	260

Part No	Inductance		Q		SRF	DCR	Saturation Current	Temperature Rise Current
	L(μH) '@1KHz	Tole	Min	Test Freq.	(MHz) Min	(Ω) Max	(mA) Max	(mA) Max
SPK1010-472K-□□	4700	K	30	252KHz	0.54	7.600	240	210
SPK1010-682K-□□	6800	K	30	252KHz	0.45	9.800	200	180
SPK1010-103K-□□	10000	K	30	79.6KHz	0.38	18.000	170	140
SPK1010-153K-□□	15000	K	50	79.6KHz	0.29	24.000	130	120

● SPK1012 Series Electrical Characteristics (Electrical specifications at 25℃)

Part No	Inductance		Q		SRF	DCR	Saturation Current	Temperature Rise Current
	L(μH) '@1KHz	Tole	Max	Test Freq.	(MHz) Min	(Ω) Max	(mA) Max	(mA) Max
SPK1012-3R3M-□	3.3	M	90	7.96MHz	59.00	0.025	5500	5500
SPK1012-4R7M-□	4.7	M	100	7.96MHz	45.00	0.030	5000	5000
SPK1012-6R8M-□	6.8	M	80	7.96MHz	34.00	0.040	4800	4800
SPK1012-100M-□□	10	M	100	2.52MHz	26.00	0.050	4200	4200
SPK1012-150M-□□	15	M	100	2.52MHz	19.00	0.060	3800	3800
SPK1012-220M-□□	22	M	100	2.52MHz	14.00	0.080	3500	3500
SPK1012-330M-□□	33	M	100	2.52MHz	10.00	0.100	3000	3000
SPK1012-470K -□□	47	K	90	2.52MHz	8.30	0.120	2000	2000
SPK1012-680K -□□	68	K	80	2.52MHz	6.70	0.150	1700	1700
SPK1012-101K -□□	100	K	70	796KHz	5.40	0.180	1500	1500
SPK1012-151K -□□	150	K	70	796KHz	4.30	0.250	1200	1200
SPK1012-221K -□□	220	K	40	796KHz	3.40	0.300	900	900
SPK1012-331K -□□	330	K	40	796KHz	2.70	0.550	700	700
SPK1012-471K -□□	470	K	30	796KHz	2.30	0.650	550	550
SPK1012-681K -□□	680	K	30	796KHz	1.90	0.850	500	500
SPK1012-102K -□□	1000	K	40	252KHz	1.60	1.400	300	300
SPK1012-152K -□□	1500	K	30	252KHz	1.30	1.700	250	250
SPK1012-222K -□□	2200	K	50	252KHz	1.10	2.900	210	210
SPK1012-332K -□□	3300	K	50	252KHz	0.60	3.700	200	200
SPK1012-472K -□□	4700	K	50	252KHz	0.56	5.600	190	190
SPK1012-682K -□□	6800	K	50	252KHz	0.45	9.400	180	180
SPK1012-103K-□□	10000	K	80	79.6KHz	0.35	12.000	180	170
SPK1012-123K-□□	12000	K	80	79.6KHz	0.31	13.000	160	160
SPK1012-153K-□□	15000	K	70	79.6KHz	0.28	18.000	140	140
SPK1012-183K-□□	18000	K	80	79.6KHz	0.26	25.000	130	120
SPK1012-223K-□□	22000	K	80	79.6KHz	0.22	30.000	120	110
SPK1012-273K-□□	27000	K	80	79.6KHz	0.20	35.000	110	100

SPK1012-333K-□□	33000	K	60	79.6KHz	0.19	40.000	100	90
SPK1012-393K-□□	39000	K	60	79.6KHz	0.17	50.000	90	80

Part No	Inductance		Q		SRF	DCR	Saturation Current	Temperature Rise Current
	L(μH) '@1KHz	Tole	Max	Test Freq.	(MHz) Min	(Ω) Max	(mA) Max	(mA) Max
SPK1012-473K-□□	47000	K	60	79.6KHz	0.15	50.000	80	75
SPK1012-563K-□□	56000	K	40	79.6KHz	0.13	65.000	75	70
SPK1012-683K-□□	68000	K	40	79.6KHz	0.12	70.000	70	65
SPK1012-823K-□□	82000	K	30	79.6KHz	0.10	100.000	60	55
SPK1012-104K-□□	100000	K	30	79.6KHz	0.10	135.000	55	45

● SPK1016 Series Electrical Characteristics (Electrical specifications at 25℃)

Part No	Inductance		DCR	Saturation Current	Temperature Rise Current
	L(μH) '@1KHz	Tole	(Ω) Max	(mA) Max	(mA) Max
SPK1016-4R7M -□□	4.7	M	0.020	8500	5800
SPK1016-5R6M -□□	5.6	M	0.025	8500	5500
SPK1016-6R8M -□□	6.8	M	0.025	8500	5400
SPK1016-8R2M -□□	8.2	M	0.028	8000	5200
SPK1016-100M -□□	10	M	0.035	7600	5000
SPK1016-120M -□□	12	M	0.035	7500	4500
SPK1016-150M -□□	15	M	0.040	6500	4000
SPK1016-180M -□□	18	M	0.060	6000	4000
SPK1016-220M -□□	22	M	0.080	5400	3800
SPK1016-330M -□□	33	M	0.100	4400	3500
SPK1016-470K-□□	47	K	0.120	3800	3000
SPK1016-560K-□□	47	K	0.130	3400	2800
SPK1016-680K-□□	68	K	0.140	3000	2500
SPK1016-101K-□□	100	K	0.180	2500	2000
SPK1016-151K-□□	150	K	0.220	1800	1600
SPK1016-221K-□□	220	K	0.300	1500	1500
SPK1016-331K-□□	330	K	0.600	1300	1300
SPK1016-471K-□□	470	K	0.800	1000	1000
SPK1016-681K-□□	680	K	1.000	900	900
SPK1016-102K-□□	1000	K	1.200	700	700
SPK1016-152K-□□	1500	K	1.500	520	520

Part No	Inductance		DCR	Saturation Current	Temperature Rise Current
	L(μH) '@1KHz	Tole	(Ω) Max	(mA) Max	(mA) Max
SPK1016-222K-□□	2200	K	2.200	450	450
SPK1016-332K-□□	3300	K	3.300	350	350
SPK1016-472K-□□	4700	K	4.700	300	300
SPK1016-682K-□□	6800	K	6.800	250	250
SPK1016-103K-□□	10000	K	10.00	180	180

● SPK1018 Series Electrical Characteristics (Electrical specifications at 25℃)

Part No	Inductance		DCR	Saturation Current	Temperature Rise Current
	L(μH) '@1KHz	Tole	(Ω) Max	(mA) Max	(mA) Max
SPK1018-4R7K-□□	4.7	K	0.008	10000	6000
SPK1018-6R8K-□□	6.8	K	0.011	8000	5000
SPK1018-100K-□□	10	K	0.017	7000	4500
SPK1018-150K-□□	15	K	0.022	5500	4000
SPK1018-220K-□□	22	K	0.026	4500	3700
SPK1018-330K-□□	33	K	0.032	3800	3300
SPK1018-470K-□□	47	K	0.035	3200	3000
SPK1018-680K-□□	68	K	0.047	2600	2600
SPK1018-101K-□□	100	K	0.090	2200	2000
SPK1018-151K-□□	150	K	0.129	1800	1600
SPK1018-221K-□□	220	K	0.162	1500	1500
SPK1018-331K-□□	330	K	0.212	1200	1200
SPK1018-471K-□□	470	K	0.380	1000	1000
SPK1018-681K-□□	680	K	0.548	840	840
SPK1018-102K-□□	1000	K	0.844	660	660
SPK1018-152K-□□	1500	K	1.180	550	550
SPK1018-222K-□□	2200	K	2.000	460	440
SPK1018-332K-□□	3300	K	2.530	380	380

SPK1018-472K-□□	4700	K	3.190	320	320

Part No	Inductance		DCR	Saturation Current	Temperature Rise Current
	L(μH) '@1KHz	Tole	(Ω) Max	(mA) Max	(mA) Max
SPK1018-682K-□□	6800	K	5.690	260	250
SPK1018-103K-□□	10000	K	7.3000	220	220
SPK1018-153K-□□	15000	K	10.500	180	180
SPK1018-223K-□□	22000	K	21.800	140	130
SPK1018-333K-□□	33000	K	25.700	120	120
SPK1018-473K-□□	47000	K	36.100	100	100
SPK1018-683K-□□	68000	K	57.300	80	80
SPK1018-104K-□□	100000	K	89.700	60	60

● SPK1213 Series Electrical Characteristics (Electrical specifications at 25℃)

Part No	Inductance		DCR	Saturation Current	Temperature Rise Current
	L(μH) '@1KHz	Tole	(Ω) Max	(mA) Max	(mA) Max
SPK1213-100M-□□	10	M	0.023	8000	5100
SPK1213-150M-□□	15	M	0.028	6500	4500
SPK1213-220M-□□	22	M	0.035	5500	4200
SPK1213-330M-□□	33	M	0.043	4500	3700
SPK1213-470K -□□	47	K	0.052	3600	3400
SPK1213-680K -□□	68	K	0.068	3100	3000
SPK1213-101K-□□	100	K	0.097	2600	2500
SPK1213-151K-□□	150	K	0.140	2100	2100
SPK1213-221K-□□	220	K	0.200	1700	1700
SPK1213-331K-□□	330	K	0.300	1400	1400
SPK1213-471K-□□	470	K	0.430	1100	1100
SPK1213-681K-□□	680	K	0.610	950	990
SPK1213-102K-□□	1000	K	1.000	780	780
SPK1213-152K-□□	1500	K	1.300	640	680
SPK1213-222K-□□	2200	K	2.000	530	550
SPK1213-332K-□□	3300	K	3.100	430	440
SPK1213-472K-□□	4700	K	4.400	360	370
SPK1213-682K-□□	6800	K	6.500	300	300
SPK1213-103K-□□	10000	K	10.000	240	240

● Saturation Current: DC current at which inductance drops 10% from its value without current

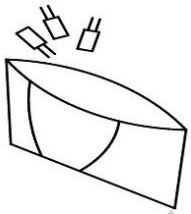
● Temperature Rise Current: the actual value of DC current when the temperature rise isΔT 40℃ (Ta=25℃)

- Rated DC Current：The less value which is Isat or Irms
- Special remind:Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application

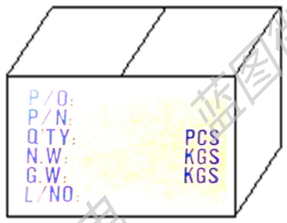
◆产品包装：

Packaging：

- In bag pakeage



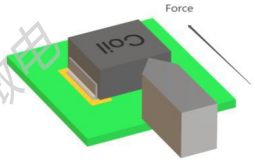
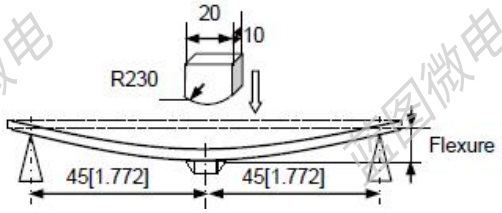
PE 袋



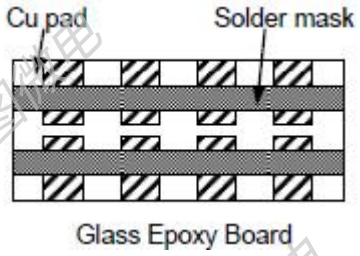
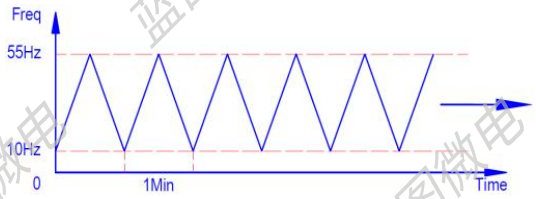
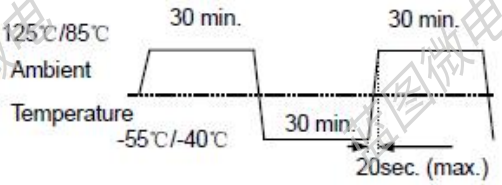
Outside Carton
不足整箱用内盒或填充物装满

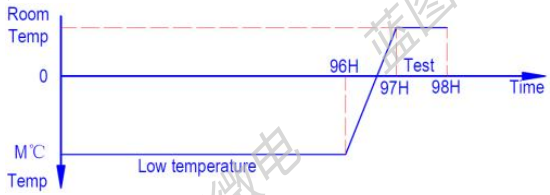
Part No.	PE 胶袋每袋数量	外箱
SPK0406	1000PCS	20,000PCS
SPK0608	1000PCS	20,000PCS
SPK0707	500PCS	10,000PCS
SPK0807	500PCS	10,000PCS
SPK0810	500PCS	10,000PCS
SPK0912	200PCS	4000PCS
SPK1010	200PCS	4000PCS
SPK1012	200PCS	4000PCS
SPK1016	200PCS	4000PCS
SPK1018	200PCS	4000PCS
SPK1213	200PCS	4000PCS

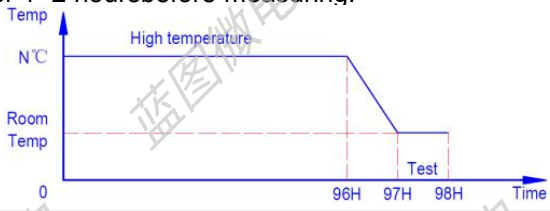
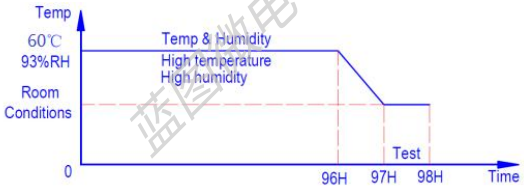
◆可靠性测试： Reliability Testing：

Items	Requirements	Test Methods and Remarks
Terminal Strength Reference docu ments: GB/T 2423.60-2008 端子強度(SMT)	1. Pulling test: Define: A: sectional area of terminal A≦8mm2 force≧5N time:30sec 8mm2<A≦20mm2 force ≧10N time: 10sec 20mm2<A force ≧20N time: 10sec 2.Solder paste thickness:0.12mm 3.Meet the above requirements without any loose terminal	Solder the inductor to the testing jig using leadfree solder. Then apply a force in the Keep time: 10±1s Speed: 1.0mm/s. 
erminal Strength Reference docu ments: GB/T 2423.60-2008 端子強度(DIP)	1.Terminal diameter(d) mm 0.35＜d≦ 0.50Applied force:5N Duration: 10sec2.Terminal diameter(d) mm0.50＜d≦ 0.80Applied force:10N Duration: 10sec3.Terminal diameter(d) mm0.80＜d≦ 1.25Applied force:20N Duration: 10sec4.Terminal diameter(d) mmD＞ 1.25Applied force:40N Duration: 10sec5.Meet the above requirements without any loose terminal.	Pull Force:the force shall be applied gradually to the terminal and thenmaintained for 10 seconds. 
Resistance to Flexure JIS C 5321:1997 抗弯曲性试验	1.No visible mechanical damage.	1.Solder the inductor to the test jig (glass epoxy board 2.shown in Using a leadfree solder. Then apply a force in the direction shown 3.Flexure: 2mm. 4.Pressurizing Speed: 0.5mm/sec. 5.Keep time: 30 sec. 
Dropping Reference documents: GB/T 2423.7-2018 落下試驗	1.No case deformation or change inappearance. 2.No short and no open.	1.Drop the packaged products from 1m high in 1 angle, 3 ridges and 6surfaces, twice in each direction.
Solderability Reference documents:	1.No visible mechanical damage.	1.Solder temperture:240±2℃

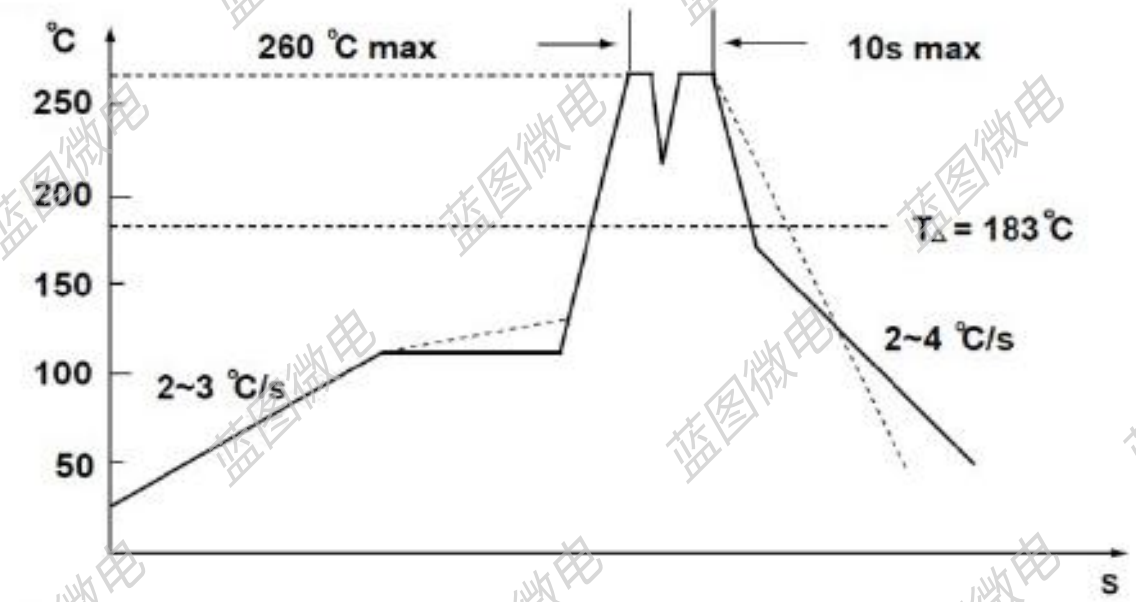
GB/T 2423.28-2005 可焊性试验	2.Wetting shall exceed 75% coverage for 3.Terminals must have 95% minimum solder coverage	2.Duration: 3 sec. 3. Solder: Sn/3.0Ag/0.5Cu. 4.Flux: 25% Resin and 75% ethanol in weight

Items	Requirements	Test Methods and Remarks
Vibration Reference documents: GB/T 2423.10-2019 振動試验	1.No visible mechanical damage. 2. Inductance change: Within ±10%. 3.Q factor change: Within ±20%. 	1.Solder the inductor to the testing jig (glass epoxy boardshown in) using leadfree solder. 2.The inductor shall be subjected to a simple harmonic motion having total amplitude of 1.5mm, the frequency being varieduniformly between the approximate limits of 10 and 55 Hz. 3.The frequency range from 10 to 55 Hz and return to 10 Hz shallbe traversed in approximately 1 minute. This motion shall be applied for a period of 2 hours in each 3mutually perpendicular directions(total of 6 hours). 
Thermal Shock Reference documents: GB/T 2423.22-2012 Method Na 冷热冲击试验	1.No visible mechanical damage. 2. Inductance change: Within ±10%.(Mn-Zn: Within ≦30%) 3.Q factor change: Within ±20%.	1.Start at (85~125℃) for T time, rush to (-55~40℃) for T time as one cycle, go through100 cycles. 2.Transforming interval: Max. 20 sec. 3.Tested cycle: 100 cycles. 4.The chip shall be stabilized at normal condition for 1~2 hours 

Low temperature Storage Reference documents: GB/T 2423.1-2008 Method Ab 低温储存试验	1.No visible mechanical damage. 2. Inductance change: Within ±10%.(Mn-Zn: Within ≦30%) 3.Q factor change: Within ±20%.	1.Temperature:M(-55~-40±2℃). 2.Duration: 96±2 hours 3.The chip shall be stabilized at normal condition for 1~2 hoursbefore measuring. 

Items	Requirements	Test Methods and Remarks
High temperature Storage Reference documents: GB/T 2423.2-2008 Method Bb 高温储存试验	1.No visible mechanical damage. 2. Inductance change: Within ±10%.(Mn-Zn: Within ≦30%) 3.Q factor change: Within ±20%.	1.Temperature:N(125~85±2℃). 2.Duration: 96±2 hours 3.The chip shall be stabilized at normal condition for 1~2 hoursbefore measuring. 
Damp Heat (Steady States) Reference documents: GB/T 2423.3-2016 恒定湿热试验	1.No visible mechanical damage. 2. Inductance change: Within ±10%.(Mn-Zn: Within ≦30%) 3.Q factor change: Within ±20%.	1.Temperature: 60±2℃ 2.Humidity: 90% to 95% RH. 3.Duration: 96±2 hours. 4.The chip shall be stabilized at normal condition for 1~2 hoursbefore measuring. 
Heat endurance of Reflow soldering Reference documents: GJB 360B-2009 回流焊耐热性试验	1.No significant defects in appearance. 2. ΔL/L≦10% (Mn-Zn: ΔL/L≦30%) 3. ΔQ/Q≦30% （SMD series only） 4. ΔDCR/DCR≦10%	1.Refer to the above reflow curve and go through the reflow for twice. 2.The peak temperature : 260+0/-5℃
Resistance to solvent test Reference documents: IEC 68-2-45:1993 耐溶剂性试验	No case deformation or change in appearance or obliteration of marking	To dip parts into IPA solvent for 5±0.5Min,then drying them at room temp for 5Min,at last ,to brushing making 10 times.

Overload test Reference documents: JIS C5311-6.13 过负荷试验	1.During the test no smoke, no peculiar, smell, no fire 2.The characteristic is normal after test	Apply twice as rated current for 5 minutes.



voltage resistance test Reference documents: MIL-STD-202G Method 301 绝缘耐压测试	1.During the test no breakdown 2.The characteristic is normal after test	1. For parts with two coils 2. DC1000V, Current: 1mA, Time: 1Min. 3. Refer to catalogue of specific products

◆推荐无铅波峰焊接曲线：　　**Lead-free the recommended Wave soldering** (DIP-TYP) ：

The recommended reflow conditions as above graph, is set according to our soldering equipment. DUE to various manufactures may have different reflow soldering equipment, products, process conditions, set methods. And so on, when setting the reflow conditions, Please adjust and confirm according to users' environment/equipment.

使用注意事项

REMINDERS FOR USING THESE PRODUCTS

- 保存时间为12 个月以内，保存条件（温度5~40°C以下、湿度35 ～ 66%RH 以下），需充分注意。
  若超过保存时间，端子电极的可焊性将可能老化。
  The storage period is within 12 months. Be sure to follow the storage conditions (temperature: 5~40°C, humidity: 35 to 65% RH or less). If the storage period elapses, the soldering of the terminal electrodes may deteriorate。
- 请勿在气体腐蚀环境（盐、酸、碱等）下使用和保存。
  Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).
- 手上的油脂会导致可焊性降低，应避免用手直接接触端子。
  Don't touch electrodes directly with bare hands as oil secretions may inhibit soldering Always ensure optimum conditions for soldering。
- 请小心轻拿轻放,避免由于产品的跌落或取出不当而导致的损坏。
  Please always handle products carefully to prevent any damage caused bydropping down or inappropriate removing。
- 端子过度弯曲会导致断线,请不要过度弯曲端子。

Don't bend the terminals with excessive stress in case of any wire fracture。

- 不要清洗产品，如需要清洗时请联系我司。
  Don't rinse coils by yourself and please contact SXN if necessary。
- 请勿将本产品靠近磁铁或带有磁力的物体
  Don't expose the products to magnets or magnetic fields
- 在实施焊接前，请务必进行预热。预热温度与焊接温度及芯片温度的温度差要在150°C 以内。
  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.
- 安装后的焊接修正应在规格书规定的条件范围内。若加热过度可能导致短路、性能降低、寿命减少。
  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.
- 装置会因通电而自我发热（温度上升），因此在热设计方面需留有充分余地。
  Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- 非磁屏蔽型在基板设计时需注意配置线圈，受到电磁干扰可能会导致误动作。
  Carefully lay out the coil for the circuit board design of the non-magnetic shield type. A malfunction may occur due to magnetic interference.