



# Unshielded Power Inductor–SM Series



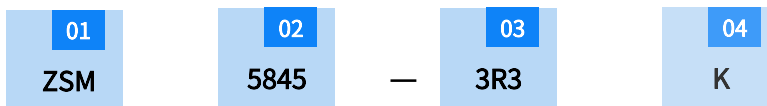
## FEATURES

- ROHS, Halogen free and REACH Compliance.
- Unshielded power inductor.
- High current rating, Large terminal surface for good PCB bonding.
- Various package size and wide inductance range.

## APPLICATIONS

Portable computers, LED televisions, TV,DC/DC converter and power supply for VTRs.

## PRODUCT IDENTIFICATION



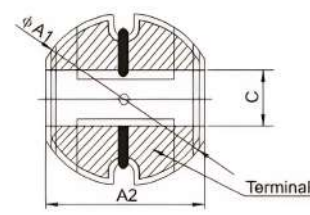
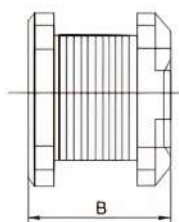
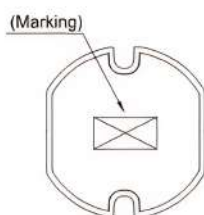
01 Type	
ZSM	Unshielded Power Inductor

05 Tolerance	
J	±5%
K	±10%
M	±20%

02 External Dimensions (LxW)(mm)	
3511	3.5x 1.1
3516	3.5x 1.6
3521	3.5x 2.1
4520	4.5x 2.0
4532	4.5x 3.2
5830	5.8x 3.0
5845	5.8x 4.5
7835	7.8x 3.5
7850	7.8x 5.0
1040	10.0x 4.0
1054	10.0x 5.4
1070	10.0x 7.0
1082	10.0x 8.2

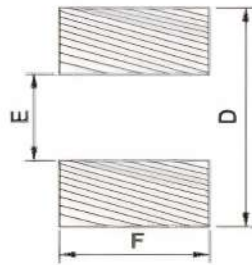
04 Nominal Inductance	
Example	Nominal value
3R3	3.3uH
330	33uH
331	330uH
332	3300uH

## SHAPE AND DIMENSIONS



Part Number	Dimensions(mm)			
	ΦA1	A2	B	C(REF)
ZSM3511	3.5±0.2	3.0±0.2	1.1±0.3	0.8
ZSM3516	3.5±0.2	3.0±0.2	1.6±0.3	0.8
ZSM3521	3.5±0.2	3.0±0.2	2.1±0.3	0.8
ZSM4520	4.5±0.2	4.0±0.2	2.0±0.3	1.2
ZSM4532	4.5±0.2	4.0±0.2	3.2±0.3	1.2
ZSM5830	5.8±0.2	5.2±0.2	3.0±0.3	1.5
ZSM5845	5.8±0.2	5.2±0.2	4.5±0.3	1.5
ZSM7835	7.8±0.2	7.0±0.2	3.5±0.3	2.1
ZSM7850	7.8±0.2	7.0±0.2	5.0±0.3	2.1
ZSM1040	10.0±0.2	9.0±0.2	4.0±0.3	2.5
ZSM1054	10.0±0.2	9.0±0.2	5.4±0.3	2.5
ZSM1070	10.0±0.2	9.0±0.2	7.0±0.3	2.5
ZSM1082	10.0±0.2	9.0±0.2	8.2±0.3	2.5

## RECOMMENDED PC BOARD PATTERN



Part Number	Dimensions(mm)		
	D	E	F
ZSM3511	3.9±0.2	1.0±0.2	3.4±0.2
ZSM3516	3.9±0.2	1.0±0.2	3.4±0.2
ZSM3521	3.9±0.2	1.0±0.2	3.4±0.2
ZSM4520	4.9±0.2	1.0±0.2	4.4±0.2
ZSM4532	4.9±0.2	1.0±0.2	4.4±0.2
ZSM5830	6.2±0.2	1.2±0.2	5.4±0.2
ZSM5845	6.2±0.2	1.2±0.2	5.4±0.2
ZSM7835	8.2±0.2	1.8±0.2	7.2±0.2
ZSM7850	8.2±0.2	1.8±0.2	7.2±0.2
ZSM1040	10.4±0.2	2.3±0.2	9.2±0.2
ZSM1054	10.4±0.2	2.3±0.2	9.2±0.2
ZSM1070	10.4±0.2	2.3±0.2	9.2±0.2
ZSM1082	10.4±0.2	2.3±0.2	9.2±0.2

## SPECIFICATIONS

### ● ZSM3511 TYPE

Part Number	Inductance (uH)	Tolerance	Test condition (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
ZSM3511-1R0	1.0	K、M	100/0.25	0.08	1400
ZSM3511-1R5	1.5		100/0.25	0.11	1200
ZSM3511-2R2	2.2		100/0.25	0.14	1050
ZSM3511-3R3	3.3		100/0.25	0.20	1000
ZSM3511-4R7	4.7		100/0.25	0.25	850
ZSM3511-5R6	5.6		100/0.25	0.32	760
ZSM3511-6R8	6.8		100/0.25	0.334	720
ZSM3511-8R2	8.2		100/0.25	0.48	640
ZSM3511-100	10		100/0.25	0.56	580
ZSM3511-150	15		100/0.25	0.85	470
ZSM3511-220	22		100/0.25	0.98	340
ZSM3511-330	33		100/0.25	1.66	320
ZSM3511-470	47		100/0.25	2.0	240
ZSM3511-680	68		100/0.25	3.5	220

**Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、M: ±20%;**

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current

### ● ZSM3516 TYPE

Part Number	Inductance (uH)	Tolerance	Test condition (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
ZSM3516-1R0	1.0	K、M	100/0.25	0.055	1800
ZSM3516-1R5	1.5		100/0.25	0.080	1450
ZSM3516-2R2	2.2		100/0.25	0.105	1150
ZSM3516-3R3	3.3		100/0.25	0.150	950
ZSM3516-4R7	4.7		100/0.25	0.22	750
ZSM3516-5R6	5.6		100/0.25	0.27	700
ZSM3516-6R8	6.8		100/0.25	0.30	650
ZSM3516-8R2	8.2		100/0.25	0.32	600



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Specifications subject to change without notice. Please check our website for latest information.

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Part Number	Inductance (uH)	Tolerance	Test condition (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
ZSM3516-100	10	K、M	100/0.25	0.35	550
ZSM3516-150	15		100/0.25	0.45	450
ZSM3516-180	18		100/0.25	0.57	400
ZSM3516-220	22		100/0.25	0.73	350
ZSM3516-330	33		100/0.25	1.20	300
ZSM3516-470	47		100/0.25	2.0	250
ZSM3516-680	68		100/0.25	2.4	200

**Note: When ordering, please specify tolerance code. Tolerance: K: ±10%, M: ±20%;**  
 1. Operating temperature range -40 -125°C  
 2. Isat for Inductance drop 30% from its value without current

● ZSM3521 TYPE

Part Number	Inductance (uH)	Tolerance	Test condition (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
ZSM3521-1R0	1.0	K、M	100/0.25	0.04	2250
ZSM3521-1R4	1.4		100/0.25	0.06	2000
ZSM3521-1R8	1.8		100/0.25	0.065	1800
ZSM3521-2R2	2.2		100/0.25	0.08	1700
ZSM3521-2R7	2.7		100/0.25	0.09	1500
ZSM3521-3R3	3.3		100/0.25	0.10	1450
ZSM3521-3R9	3.9		100/0.25	0.13	1200
ZSM3521-4R7	4.7		100/0.25	0.15	1150
ZSM3521-5R6	5.6		100/0.25	0.19	1050
ZSM3521-6R8	6.8		100/0.25	0.24	950
ZSM3521-8R2	8.2		100/0.25	0.28	900
ZSM3521-100	10		100/0.25	0.33	800
ZSM3521-120	12		100/0.25	0.36	700
ZSM3521-150	15		100/0.25	0.47	650
ZSM3521-180	18		100/0.25	0.53	600
ZSM3521-220	22		100/0.25	0.67	550
ZSM3521-270	27		100/0.25	0.91	500
ZSM3521-330	33		100/0.25	1.25	450



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Part Number	Inductance (uH)	Tolerance	Test condition (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
ZSM3521-390	39	K、M	100/0.25	1.30	400
ZSM3521-470	47		100/0.25	1.80	350
ZSM3521-560	56		100/0.25	2.00	320
ZSM3521-680	68		100/0.25	2.30	300
ZSM3521-820	82		100/0.25	3.15	280
ZSM3521-101	100		100/0.25	3.50	260
ZSM3521-271	270		100/0.25	10.0	160
ZSM3521-331	330		100/0.25	12.5	140
ZSM3521-471	470		100/0.25	21.5	120

**Note: When ordering, please specify tolerance code. Tolerance: K: ±10%, M: ±20%;**  
 1. Operating temperature range -40 -125°C  
 2. Isat for Inductance drop 30% from its value without current

● ZSM4520 TYPE

Part Number	Inductance (uH)	Tolerance	Test condition (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
ZSM4520-1R0	1.0	K、M	100/0.25	0.035	2700
ZSM4520-1R5	1.5		100/0.25	0.04	2500
ZSM4520-2R2	2.2		100/0.25	0.055	2000
ZSM4520-3R3	3.3		100/0.25	0.07	1750
ZSM4520-4R7	4.7		100/0.25	0.095	1500
ZSM4520-5R6	5.6		100/0.25	0.11	1400
ZSM4520-6R8	6.8		100/0.25	0.14	1200
ZSM4520-8R2	8.2		100/0.25	0.16	1100
ZSM4520-100	10		100/0.25	0.20	1000
ZSM4520-150	15		100/0.25	0.29	820
ZSM4520-180	18		100/0.25	0.34	800
ZSM4520-220	22		100/0.25	0.40	680
ZSM4520-330	33		100/0.25	0.60	550
ZSM4520-470	47		100/0.25	1.0	460
ZSM4520-680	68		100/0.25	1.3	390
ZSM4520-820	82		100/0.25	1.5	350



● ZSM4532 TYPE

Part Number	Inductance (uH)	Tolerance	Test condition (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
ZSM4532-1R0	1.0	K、 M	100/0.25	0.033	3800
ZSM4532-1R4	1.4		100/0.25	0.038	3300
ZSM4532-1R8	1.8		100/0.25	0.042	2910
ZSM4532-2R2	2.2		100/0.25	0.047	2600
ZSM4532-2R7	2.7		100/0.25	0.052	2430
ZSM4532-3R3	3.3		100/0.25	0.058	2150
ZSM4532-3R9	3.9		100/0.25	0.076	1980
ZSM4532-4R7	4.7		100/0.25	0.094	1700
ZSM4532-5R6	5.6		100/0.25	0.101	1600
ZSM4532-6R8	6.8		100/0.25	0.120	1450
ZSM4532-8R2	8.2		100/0.25	0.132	1260
ZSM4532-100	10		100/0.25	0.182	1150
ZSM4532-120	12		100/0.25	0.210	1050
ZSM4532-150	15		100/0.25	0.235	850
ZSM4532-180	18		100/0.25	0.338	840
ZSM4532-220	22		100/0.25	0.378	760
ZSM4532-270	27		100/0.25	0.522	710
ZSM4532-330	33		100/0.25	0.540	640
ZSM4532-390	39		100/0.25	0.750	590
ZSM4532-470	47		100/0.25	0.844	540
ZSM4532-330	68		100/0.25	0.930	370
ZSM4532-330	100		100/0.25	1.350	400
ZSM4532-330	220		100/0.25	2.600	300
ZSM4532-330	330		100/0.25	3.500	220
ZSM4532-330	470		100/0.25	4.200	180
ZSM4532-330	560		100/0.25	6.000	120
ZSM4532-330	680	100/0.25	7.000	100	
ZSM4532-330	1000	100/0.25	12.5	50	

**Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、 M: ±20%;**

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current



● ZSM5845 TYPE

Part Number	Inductance (uH)	Tolerance	Test condition (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
ZSM5845-1R0	1.0	K、M	100/0.25	0.018	5000
ZSM5845-1R8	1.8		100/0.25	0.025	4000
ZSM5845-2R7	2.7		100/0.25	0.028	3000
ZSM5845-3R3	3.3		100/0.25	0.030	2500
ZSM5845-3R9	3.9		100/0.25	0.032	2000
ZSM5845-4R7	4.7		100/0.25	0.035	1800
ZSM5845-5R6	5.6		100/0.25	0.040	1650
ZSM5845-6R8	6.8		100/0.25	0.045	1600
ZSM5845-8R2	8.2		100/0.25	0.055	1500
ZSM5845-100	10		100/0.25	0.10	1440
ZSM5845-120	12		100/0.25	0.12	1400
ZSM5845-150	15		100/0.25	0.14	1300
ZSM5845-180	18		100/0.25	0.15	1230
ZSM5845-220	22		100/0.25	0.18	1110
ZSM5845-270	27		100/0.25	0.20	970
ZSM5845-330	33		100/0.25	0.23	880
ZSM5845-390	39		100/0.25	0.32	800
ZSM5845-470	47		100/0.25	0.37	720
ZSM5845-560	56		100/0.25	0.42	680
ZSM5845-680	68		100/0.25	0.46	610
ZSM5845-820	82		100/0.25	0.60	580
ZSM5845-101	100		100/0.25	0.70	520
ZSM5845-121	120	100/0.25	0.93	480	
ZSM5845-151	150	100/0.25	1.10	400	
ZSM5845-181	180	100/0.25	1.38	380	
ZSM5845-221	220	100/0.25	1.57	350	

**Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、M: ±20%;**

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current



● ZSM7835 TYPE

Part Number	Inductance (uH)	Tolerance	Test condition (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
ZSM7835-1R0	1.0	K、M	100/0.25	0.015	6500
ZSM7835-2R7	2.7		100/0.25	0.025	3800
ZSM7835-3R3	3.3		100/0.25	0.030	3500
ZSM7835-3R9	3.9		100/0.25	0.032	3000
ZSM7835-4R7	4.7		100/0.25	0.040	2800
ZSM7835-5R6	5.6		100/0.25	0.055	2600
ZSM7835-6R8	6.8		100/0.25	0.065	2400
ZSM7835-8R2	8.2		100/0.25	0.075	2000
ZSM7835-100	10		100/0.25	0.080	1900
ZSM7835-120	12		100/0.25	0.090	1700
ZSM7835-150	15		100/0.25	0.095	1500
ZSM7835-180	18		100/0.25	0.100	1400
ZSM7835-220	22		100/0.25	0.13	1200
ZSM7835-270	27		100/0.25	0.15	1100
ZSM7835-330	33		100/0.25	0.18	1000
ZSM7835-390	39		100/0.25	0.22	900
ZSM7835-470	47		100/0.25	0.25	850
ZSM7835-560	56		100/0.25	0.30	800
ZSM7835-680	68		100/0.25	0.33	700
ZSM7835-820	82		100/0.25	0.41	650
ZSM7835-101	100		100/0.25	0.48	600
ZSM7835-120	120		100/0.25	0.60	550
ZSM7835-151	150		100/0.25	0.75	500
ZSM7835-181	180		100/0.25	1.02	450
ZSM7835-221	220		100/0.25	1.2	400
ZSM7835-271	270		100/0.25	1.4	320
ZSM7835-331	330		100/0.25	1.7	280
ZSM7835-471	470		100/0.25	2.5	250
ZSM7835-561	560		100/0.25	3.0	240
ZSM7835-681	680		100/0.25	3.7	220
ZSM7835-821	820	100/0.25	4.3	200	





● ZSM7850 TYPE

Part Number	Inductance (uH)	Tolerance	Test condition (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
ZSM7850-1R0	1.0	K、M	100/0.25	0.030	6800
ZSM7850-1R8	1.8		100/0.25	0.035	5260
ZSM7850-2R7	2.7		100/0.25	0.040	4020
ZSM7850-3R3	3.3		100/0.25	0.045	3600
ZSM7850-3R9	3.9		100/0.25	0.050	3260
ZSM7850-4R7	4.7		100/0.25	0.055	2970
ZSM7850-5R6	5.6		100/0.25	0.060	2740
ZSM7850-6R8	6.8		100/0.25	0.065	2530
ZSM7850-8R2	8.2		100/0.25	0.070	2360
ZSM7850-100	10		100/0.25	0.075	2070
ZSM7850-120	12		100/0.25	0.080	1850
ZSM7850-150	15		100/0.25	0.090	1670
ZSM7850-180	18		100/0.25	0.100	1520
ZSM7850-220	22		100/0.25	0.110	1400
ZSM7850-270	27		100/0.25	0.120	1240
ZSM7850-330	33		100/0.25	0.130	1160
ZSM7850-390	39		100/0.25	0.160	1050
ZSM7850-470	47		100/0.25	0.196	960
ZSM7850-560	56		100/0.25	0.240	870
ZSM7850-680	68		100/0.25	0.280	790
ZSM7850-820	82		100/0.25	0.370	720
ZSM7850-101	100		100/0.25	0.430	650
ZSM7850-121	120		100/0.25	0.470	590
ZSM7850-151	150		100/0.25	0.640	530
ZSM7850-181	180		100/0.25	0.710	490
ZSM7850-221	220		100/0.25	0.960	440
ZSM7850-271	270		100/0.25	1.15	400
ZSM7850-331	330		100/0.25	1.30	360
ZSM7850-391	390		100/0.25	1.80	330
ZSM7850-471	470		100/0.25	2.00	300
ZSM7850-561	560	100/0.25	2.20	280	



Part Number	Inductance (uH)	Tolerance	Test condition (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
ZSM7850-681	680	K	100/0.25	2.75	250
ZSM7850-821	820		100/0.25	3.10	230
ZSM7850-102	1000		100/0.25	3.85	200
ZSM7850-152	1500		100/0.25	5.20	180
ZSM7850-182	1800		100/0.25	7.00	160
ZSM7850-202	2000		100/0.25	7.00	160
ZSM7850-222	2200		100/0.25	8.30	150
ZSM7850-302	3000		100/0.25	8.90	150

**Note: When ordering, please specify tolerance code. Tolerance: K: ±10%, M: ±20%;**

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current

● **ZSM1040 TYPE**

Part Number	Inductance (uH)	Tolerance	Test condition (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
ZSM1040-1R0	1.0	K、M	100/0.25	0.015	7200
ZSM1040-1R8	1.8		100/0.25	0.020	4900
ZSM1040-2R7	2.7		100/0.25	0.025	4200
ZSM1040-3R3	3.3		100/0.25	0.030	3500
ZSM1040-3R9	3.9		100/0.25	0.032	3300
ZSM1040-4R7	4.7		100/0.25	0.035	3200
ZSM1040-5R6	5.6		100/0.25	0.040	2800
ZSM1040-6R8	6.8		100/0.25	0.046	2600
ZSM1040-8R2	8.2		100/0.25	0.052	2350
ZSM1040-100	10		100/0.25	0.071	2150
ZSM1040-120	12		100/0.25	0.076	2000
ZSM1040-150	15		100/0.25	0.090	1700
ZSM1040-180	18		100/0.25	0.089	1650
ZSM1040-220	22		100/0.25	0.10	1450
ZSM1040-270	27		100/0.25	0.12	1350
ZSM1040-330	33		100/0.25	0.13	1200
ZSM1040-390	39		100/0.25	0.16	1100
ZSM1040-470	47		100/0.25	0.19	1000



Part Number	Inductance (uH)	Tolerance	Test condition (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
ZSM1040-560	56	K、M	100/0.25	0.22	900
ZSM1040-680	68		100/0.25	0.25	800
ZSM1040-820	82		100/0.25	0.30	750
ZSM1040-101	100		100/0.25	0.38	650
ZSM1040-121	120		100/0.25	0.44	600
ZSM1040-151	150		100/0.25	0.52	550
ZSM1040-181	180		100/0.25	0.60	500
ZSM1040-221	220		100/0.25	0.75	450
ZSM1040-271	270		100/0.25	0.88	400
ZSM1040-331	330		100/0.25	1.15	380
ZSM1040-391	390		100/0.25	1.38	340
ZSM1040-471	470		100/0.25	1.64	320
ZSM1040-561	560		100/0.25	2.06	290
ZSM1040-681	680		100/0.25	2.55	260
ZSM1040-821	820		100/0.25	3.10	240
ZSM1040-102	1000		100/0.25	3.55	220

**Note: When ordering, please specify tolerance code. Tolerance: K: ±10%, M: ±20%;**

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current

● ZSM1054 TYPE

Part Number	Inductance (uH)	Tolerance	Test condition (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
ZSM1054-1R0	1.0	K、M	100/0.25	0.010	7600
ZSM1054-1R8	1.8		100/0.25	0.012	6220
ZSM1054-2R7	2.7		100/0.25	0.020	4960
ZSM1054-3R3	3.3		100/0.25	0.025	4560
ZSM1054-3R9	3.9		100/0.25	0.028	4020
ZSM1054-4R7	4.7		100/0.25	0.031	3600
ZSM1054-5R6	5.6		100/0.25	0.035	3260
ZSM1054-6R8	6.8		100/0.25	0.039	2970
ZSM1054-8R2	8.2		100/0.25	0.042	2740



Part Number	Inductance (uH)	Tolerance	Test condition (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
ZSM1054-100	10	K、M	100/0.25	0.045	2530
ZSM1054-120	12		100/0.25	0.065	2210
ZSM1054-150	15		100/0.25	0.069	2070
ZSM1054-180	18		100/0.25	0.080	1850
ZSM1054-220	22		100/0.25	0.090	1670
ZSM1054-270	27		100/0.25	0.098	1520
ZSM1054-330	33		100/0.25	0.114	1340
ZSM1054-390	39		100/0.25	0.123	1240
ZSM1054-470	47		100/0.25	0.15	1160
ZSM1054-560	56		100/0.25	0.16	1050
ZSM1054-680	68		100/0.25	0.22	940
ZSM1054-820	82		100/0.25	0.27	870
ZSM1054-101	100		100/0.25	0.32	790
ZSM1054-121	120		100/0.25	0.40	690
ZSM1054-151	150		100/0.25	0.47	620
ZSM1054-220	220		100/0.25	0.68	510
ZSM1054-271	270		100/0.25	0.84	460
ZSM1054-331	330		100/0.25	1.01	420
ZSM1054-391	390		100/0.25	1.18	390
ZSM1054-471	470		100/0.25	1.42	350
ZSM1054-561	560		100/0.25	1.72	320
ZSM1054-681	680		100/0.25	2.10	290
ZSM1054-821	820		100/0.25	2.58	260
ZSM1054-102	1000	100/0.25	3.43	240	

**Note: When ordering, please specify tolerance code. Tolerance: K: ±10%, M: ±20%;**

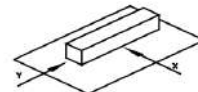
1. Operating temperature range -40 -125°C
2. Isat for Inductance drop 30% from its value without current



## DETAIL ELECTRICAL CHARACTERISTICS

1. Operating temperature range: -40 to + 105°C(Includes temperature when the coil is heated) .
2. External appearance: On visual inspection, the coil has no external defects.
3. Terminal strength: After soldering. Between copper plate and terminals of coil. Push in two directions of X.Y

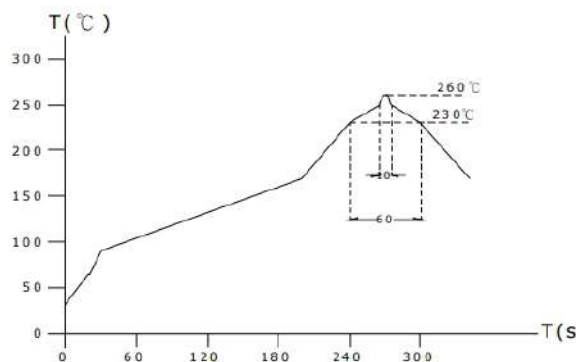
withstanding at below conditions.



Terminal should not peel off. (refer to figure at right) 5. 0N 60 sec.

4. Insulating resistance: Over 100MΩ at 100V D.C. between coil and core.
5. Dielectric strength: No dielectric breakdown at 100V D.C. for 1 minute between coil and core.
6. Temperature characteristics: Inductance coefficient  $(0\sim 2,000)\times 10^{-6}/^{\circ}\text{C}$  (-25~+80°C degree Celsius), inductance deviation within  $\pm 5.0\%$ , after 96 hours.
7. Humidity characteristics(Moisture Resistance): Inductance deviation within  $\pm 5\%$ , after 96 hours in 90~95% relative humidity at  $40 \pm 2^{\circ}\text{C}$  and 1 hour drying under normal condition.
8. Vibration resistance: Inductance deviation within  $\pm 5\%$ , after vibration for 1 hour. In each of three orientations at sweep vibration (10~55~10 Hz) with 1.5mm P-P amplitudes.
9. Shock resistance: Inductance deviation within  $\pm 5\%$ , after being dropped once with 981m/s<sup>2</sup> (100G) shock attitude upon a rubber block method shock testing machine, in three different orientations.
10. Resistance to Soldering Heat: 260°C, 10 seconds(See attached recommend reflow) .
11. Storage condition: Temperature Range: 0°C ~ 35°C; -40°C ~ 105°C (after PCB), Humidity Range: 50% ~ 70% RH.
12. Use components within 12 months. If 12 months or more have elapsed, check solderability before use.
13. Reflow profile recommend:

Lead-free heat endurance test



Lead-free the recommended reflow condition

