MOLDED WIREWOUND CHIP INDUCTORS

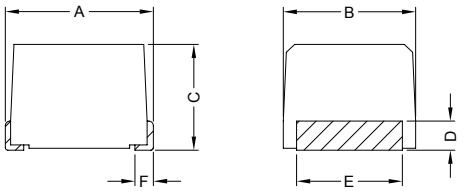
WI565050 SERIES

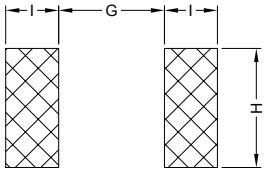
1. PART NO. EXPRESSION :

W I 5 6 5 0 5 0 - 1 R 0 K F
(a) (b) (c) (d)(e)

(a) Series code
(b) Dimension code
(c) Inductance code : 1R0 = 1.00uH
(d) Tolerance code : J = ±5%, K = ±10%
(e) F : Lead Free

2. CONFIGURATION & DIMENSIONS :



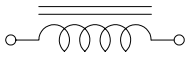


PCB Pattern

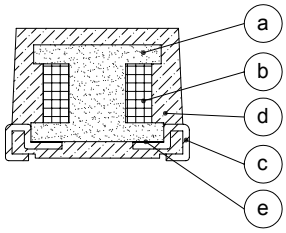
Unit:m/m

A	B	C	D	E	F	G	H	I
5.6±0.3	5.0±0.2	4.0±0.2	1.1 Ref.	4.0±0.2	0.7±0.1	4.0 Ref.	4.5 Ref.	2.0 Ref.

3. SCHEMATIC :



4. MATERIALS :



(a) Core
(b) Wire
(c) Terminal
(d) Capsulate
(e) Epoxy

RoHS Compliant

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

16.10.2008

5. GENERAL SPECIFICATION :

a) Temp. rise : 20°C Max.

d) Operating temp. : -40°C to +125°C

f) Rated current : Current cause inductance drop within 10%

6. ELECTRICAL CHARACTERISTICS :

Part No.	Inductance (μH)	Q Min.	Test Frequency (MHz)	SRF (MHz) Min.	RDC (Ω) Max.	IDC (mA) Max.
WI565050-1R0KF	1.00 ±10%	10	7.96	95	0.030	1800
WI565050-1R2KF	1.20 ±10%	10	7.96	70	0.035	1700
WI565050-1R5KF	1.50 ±10%	10	7.96	55	0.04	1600
WI565050-1R8KF	1.80 ±10%	10	7.96	47	0.05	1400
WI565050-2R2KF	2.20 ±10%	10	7.96	42	0.06	1300
WI565050-2R7KF	2.70 ±10%	10	7.96	37	0.07	1200
WI565050-3R3KF	3.30 ±10%	10	7.96	34	0.08	1120
WI565050-3R9KF	3.90 ±10%	10	7.96	32	0.09	1050
WI565050-4R7KF	4.70 ±10%	10	7.96	29	0.11	950
WI565050-5R6KF	5.60 ±10%	10	7.96	26	0.13	880
WI565050-6R8KF	6.80 ±10%	10	7.96	24	0.15	810
WI565050-8R2KF	8.20 ±10%	10	7.96	22	0.18	750
WI565050-100KF	10.00 ±10%	10	2.52	19	0.21	690
WI565050-120KF	12.00 ±10%	10	2.52	17	0.25	630
WI565050-150KF	15.00 ±10%	10	2.52	16	0.30	580
WI565050-180KF	18.00 ±10%	10	2.52	14	0.36	530
WI565050-220KF	22.00 ±10%	10	2.52	13	0.43	480
WI565050-270KF	27.00 ±10%	10	2.52	11.5	0.52	440
WI565050-330KF	33.00 ±10%	10	2.52	10.5	0.62	400
WI565050-390KF	39.00 ±10%	10	2.52	9.5	0.72	370
WI565050-470KF	47.00 ±10%	10	2.52	8.5	0.85	340
WI565050-560KF	56.00 ±10%	10	2.52	7.8	1.0	310
WI565050-680KF	68.00 ±10%	10	2.52	7.0	1.2	290
WI565050-820KF	82.00 ±10%	10	2.52	6.4	1.4	270

RoHS Compliant

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

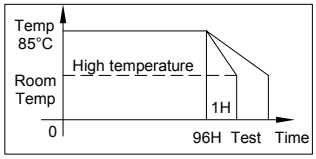
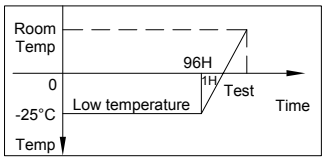
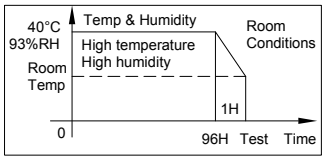
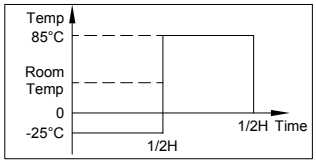
6. ELECTRICAL CHARACTERISTICS :

Part No.	Inductance (μH)	Q Min.	Test Frequency (MHz)	SRF (MHz) Min.	RDC (Ω) Max.	IDC (mA) Max.
WI565050-101KF	100.00 ±10%	20	0.796	6.0	1.6	250
WI565050-121KF	120.00 ±10%	20	0.796	5.4	1.9	230
WI565050-151KF	150.00 ±10%	20	0.796	4.8	2.2	210
WI565050-181KF	180.00 ±10%	20	0.796	4.4	2.8	190
WI565050-221KF	220.00 ±10%	20	0.796	3.9	3.4	170
WI565050-271KF	270.00 ±10%	20	0.796	3.6	4.2	155
WI565050-331KF	330.00 ±10%	20	0.796	3.2	4.9	140
WI565050-391KF	390.00 ±10%	20	0.796	2.9	5.8	130
WI565050-471KF	470.00 ±10%	20	0.796	2.6	7.0	120
WI565050-561KF	560.00 ±10%	20	0.796	2.4	8.5	110
WI565050-681KF	680.00 ±10%	20	0.796	2.2	10	100
WI565050-821KF	820.00 ±10%	20	0.796	2.0	13	90
WI565050-102KF	1000.00 ±10%	20	0.252	1.8	15	85
WI565050-122JF	1200.00 ±5%	20	0.252	1.5	17	75
WI565050-152JF	1500.00 ±5%	20	0.252	1.4	20	70
WI565050-182JF	1800.00 ±5%	20	0.252	1.3	30	60
WI565050-222JF	2200.00 ±5%	20	0.252	1.2	35	55
WI565050-272JF	2700.00 ±5%	20	0.252	1.1	55	45
WI565050-332JF	3300.00 ±5%	20	0.252	1.0	60	40
WI565050-392JF	3900.00 ±5%	20	0.252	1.0	70	38
WI565050-472JF	4700.00 ±5%	20	0.252	0.9	78	36
WI565050-562JF	5600.00 ±5%	20	0.252	0.8	85	33
WI565050-682JF	6800.00 ±5%	20	0.252	0.7	110	30
WI565050-822JF	8200.00 ±5%	20	0.252	0.6	125	28
WI565050-103JF	10000.00 ±5%	15	0.0796	0.5	150	25

RoHS Compliant

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

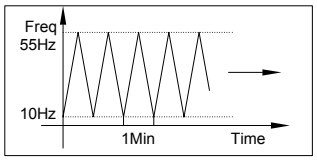
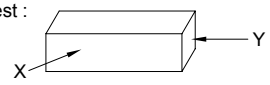
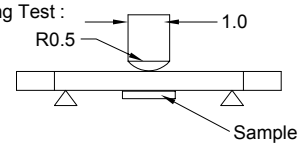
7. RELIABILTY TEST :

ITEM	PERFORMANCE	TEST CONDITION
Environmental Tests		
High Temperature Storage Test Reference documents: MIL-STD-202G Method 108A	1. No case deformation or change in appearance. 2. ΔL/L≦10% 3. ΔQ/Q ≦ 30% 4. ΔDCR/DCR≦10% or 15%	Temperature : 85±2°C Time : 96±2 hours Tested after 1 hour at room temperature 
Low Temperature Storage Test Reference documents: IEC 68-2-1A 6.1 6.2	1. No case deformation or change in appearance. 2. ΔL/L≦10% 3. ΔQ/Q ≦ 30% 4. ΔDCR/DCR≦10% or 15%	Temperature : -25±2°C Time : 96±2 hours Tested after 1 hour at room temperature 
Humidity Test Reference documents: MIL-STD-202G Method 103B	1. No case deformation or change in appearance. 2. ΔL/L≦10% 3. ΔQ/Q ≦ 30% 4. ΔDCR/DCR≦10% or 15%	Temperature : 40±2°C Humidity : 93±3% RH Time : 96±2 hours Tested after 1 hour at room temperature 
Thermal shock test Reference documents: MIL-STD-202G Method 107G	1. No case deformation or change in appearance. 2. ΔL/L≦10% 3. ΔQ/Q ≦ 30% 4. ΔDCR/DCR≦10% or 15%	Conditions of 1 cycle : Step 1 : -40°C for 30 minute Step 2 : 125°C for 30 minute Total : 20 cycles 
Physical Characteristics Tests		
Solderability Test Reference documents: MIL-STD-202G Method 208H IPC J-STD-002B	More than 95% of terminal electrode should be covered with solder.	Solder temperature : 245±5°C Dip time : 5 secs. Solder : lead free Flux : rosin flux

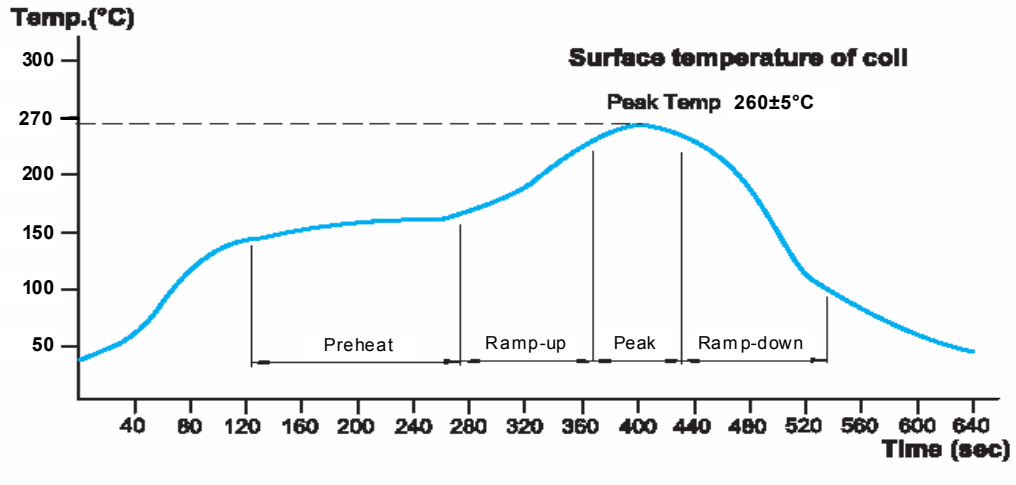
RoHS Compliant

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

7. RELIABILTY TEST :

ITEM	PERFORMANCE	TEST CONDITION
Heat Endurance of Reflow Soldering Reference documents: IPC J-STD-020B	1. No case deformation or change in appearance. 2. ΔL/L≦10% 3. ΔQ/Q ≦ 30% 4. ΔDCR/DCR≦10% or 15%	Refer to reflow curve. No. of cycle : 3 Peak temp. : 245±5°C
Vibration Test Reference documents: MIL-STD-202G Method 201A	1. No case deformation or change in appearance. 2. ΔL/L≦10% 3. ΔQ/Q ≦ 30% 4. ΔDCR/DCR≦10% or 15%	Frequency : 10~55Hz Amplitude : 0.75mm Directions & times : X, Y, Z directions for 2 hours. A period of 2 hours in each of 3 mutually perpendicular directions (Total 6 hours). 
Drop Test Reference documents: MIL-STD-202G Method 203C	1. No case deformation or change in appearance. 2. ΔL/L≦10% 3. ΔQ/Q ≦ 30% 4. ΔDCR/DCR≦10% or 15%	Drop from a height of 1m with 981m/s² (100G) altitude (1 angle, 1 ridge and 2 surface orientations)
Terminal Strength Push Test Reference documents: JIS C 5321:1997	Pulling Test : A : Sectional area of terminal Force / Time (sec): A≦8mm² — ≧5N — 30 8mm²<A≦20mm² — ≧10N — 10 20mm²<A — ≧20N — 10 Bending Test : The terminal electrode & the dielectric must not be damaged by the forces applied on the right conditions.	Bend PCB at middle point, the deflection shall be 2mm. Pulling Test :  Bending Test : 

Reflow Curve

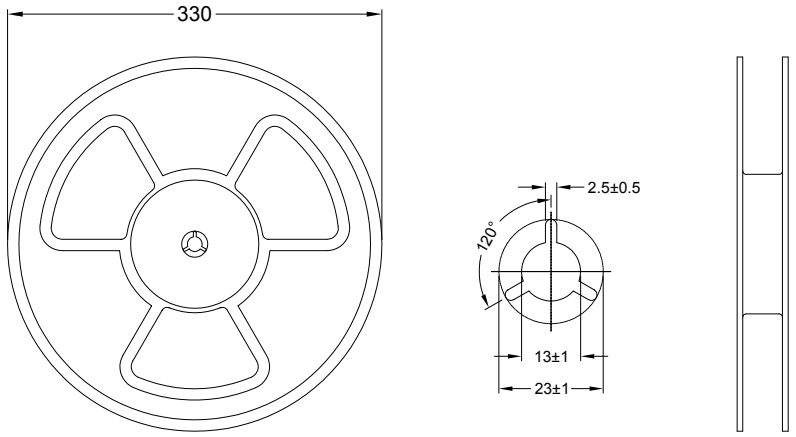


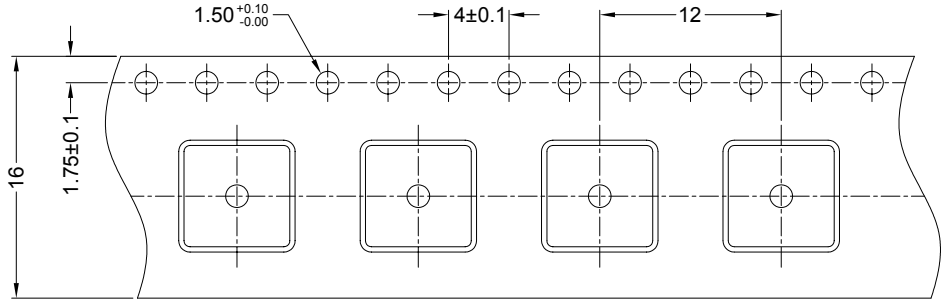
RoHS Compliant

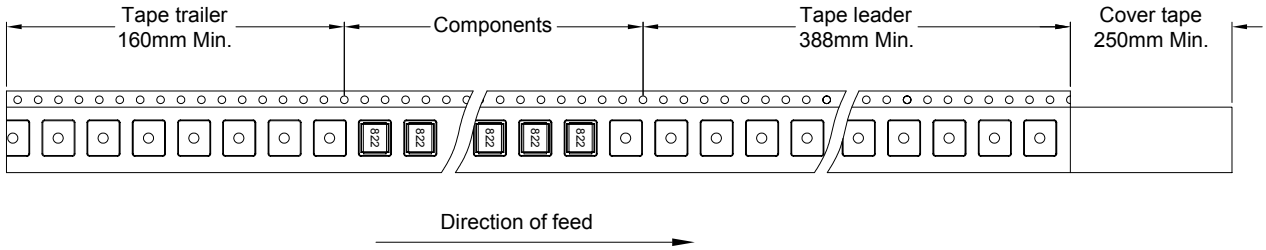
NOTE : Specifications subject to change without notice. Please check our website for latest information.

8. PACKAGING INFORMATION : (Unit : mm)

8-1. Reel & Tape Dimension







8-2. Quantity & G.W. per package

SERIES	INNER : REEL		OUTER : CARTON		
	Q'TY (PCS)	G.W. (Kg)	Q'TY (PCS)	G.W. (Kg)	SIZE (cm)
WI565050	1000	0.76	16000	14	36 x 36 x 40

RoHS Compliant

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