



# KING CORE ELECTRONICS INC.

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## RELIABILITY TEST – FLCA SERIES

ITEM	SPECIFICATION	TEST CONDITION / TEST METHOD
<b>⊙ELECTRICAL PERFORMANCE TEST</b>		
INDUCTANCE(L)		IMPEDANCE/MATERIAL ANALYZER: HP 4291B
Q		
SELF RESONANCE FREQUENCY(SRF)		
DC RESISTANCE (RDC)	REFER TO STANDARD ELECTRICAL	mΩ TESTER:HIOKI-3540
RATED CURRENT (IDC)	CHARACTERISTIC LIST	APPLIED THE CURRENT TO COILS,THE INDUCTANCE CHANGE SHALL BE LESS THAN 10% TO INITIAL VALUE &TEMPERATURE RISE SHALL NOT BE MORE THAN 20°C
TEMPERATURE RISE TEST	20°C MAX	1. APPLIED THE ALLOWED DC CURRENT FOR 10 MINUTES 2. TEMPERATURE MEASURE BY DIGITAL SURFACE THERMOMETER
OVER LOAD TEST	AFTER TEST, INDUCTORS SHALL BE NO EVIDENCE OF ELECTRICAL AND MECHANICAL DAMAGE	APPLIED 2 TIMES OF RATED ALLOWED DC CURRENT TO INDUCTOR FOR A PERIOD OF 5 MINUTES
WITHSTANDING VOLTAGE TEST	AFTER TEST, INDUCTORS SHALL BE NO EVIDENCE OF ELECTRICAL AND MECHANICAL DAMAGE	AC VOLTAGE OF 1000V AC APPLIED BETWEEN INDUCTORS TERMINAL AND CASE FOR 1 MINUTE
INSULATION RESISTANCE TEST	1000 MOHM MIN.	250VDC APPLIED BETWEEN INDUCTORS TERMINAL AND CASE
<b>⊙MECHANICAL PERFORMANCE TEST</b>		
VIBRATION TEST (LOW FREQUENCY)	1. INDUCTORS SHALL BE NO EVIDENCE OF ELECTRICAL AND MECHANICAL DAMAGE	1. AMPLITUDE:1.5m/m 2. FREQUENCY:10—55—10 Hz/MIN 3. DIRECTION:X,Y,Z 4. DURATION:2 HRS/X,Y,Z
DROP TEST	2. INDUCTANCE SHALL NOT CHANGE MORE THAN±10%	Drop 10 times from a height of 100cm onto 3 cm wooden board
RESISTANCE TO SOLDERING HEAT	3. Q SHALL NOT CHANGE MORE THAN±20%	TEMP:260±5°C TIME:10±1.0 SEC

※All the data listed in this catalogue are for reference only, King Core reserves the right to alter or revise the specifications without prior notification.

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ITEM	SPECIFICATION	TEST CONDITION / TEST METHOD
<b>◎MECHANICAL PERFORMANCE TEST</b>		
TERMINAL STRENGTH—PULL TEST	TERMINAL SHALL NOT BE LOOSENED OR RUPTURED	A 1KG LOAD SHALL BE APPLIED TO BOTH TERMINALS IN THE AXIS DIRECTION FOR 1 MINUTE. (0.5KG FOR FLCA 322522 SERIES)
SOLDERABILITY TEST	THE TERMINAL SHALL BE AT LEAST 90% COVERED WITH SOLDER	AFTER FLUXING ,INDUCTOR SHALL BE DIPPED IN A MOLTED SOLDER BATH AT 245±5°C TIME: 5±1 SEC.
RESISTANCE TO SOLVENT TEST	THERE SHALL BE NO CASE DEFORMATION CHANGE IN APPEARANCE OR OBLITERATION OF MARKING	MIL-STD-202F,METHOD 215D
<b>◎CLIMATIC TEST</b>		
TEMPERATURE CHARACTERISTIC	1. INDUCTORS SHALL BE NO EVIDENCE OF ELECTRICAL AND MECHANICAL DAMAGE 2. INDUCTANCE SHALL NOT CHANGE MORE THAN±10% 3. Q SHALL NOT CHANGE MORE THAN ±20%	-25°C ~ +85°C
HUMIDITY TEST		1. TEMP:40±2°C 2. R.H:90 ~ 95% 3. TIME:96±2HOURS
COLD TEST		1. TEMP:-25±2°C 2. TIME:96±2HOURS
THERMAL SHOCK TEST		ROOM TEMP → -25±2°C 15MINS → 30MINS  ROOM TEMP → -85±2°C 15MINS → 30MINS TOTAL:5CYCLES
DRY HEAT TEST		1. TEMP:85±2°C 2. TIME:96±2HOURS
HIGH TEMPERATURE LOAD LIFE TEST		1. TEMP:85±2°C 2. TIME:1000±12HOURS 3. LOAD:ALLOWED DC CURRENT
HUMIDITY LOAD LIFE		1. TEMP:40±2°C 2. R.H:90 ~ 95% 3. TIME:1000± 12HOURS 4. LOAD:ALLOWED DC CURRENT

**NOTE:**

UNLESS OTHERWISE SPECIFIED, ALLOW THE SPECIMEN TO STAND AT ROOM TEMPERATURE FOR 1 HOUR OR MORE BUT NOT MORE THAN 2 HOURS, MEASURE THE ELECTRICAL AND MECHANICAL PERFORMANCES