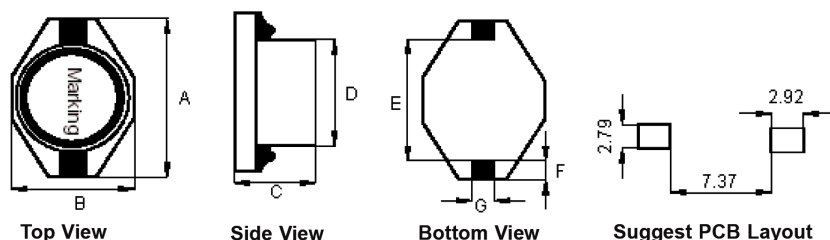


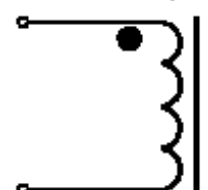
**RoHS
Compliant**



Configurations and Dimensions



Schematic Diagram



Note:
(1) Wire Ø0.11mm x 1P 2UEWF 155°C
(2) 138.5TS (Reference)

Test Data for Mechanical

Test Item	A mm	B mm	C mm	D mm	E mm	F mm	G mm
Specification	12.95 (Max.)	9.5 (Max.)	5.2 (Max.)	8.4 ±0.3	7.62 (Ref.)	2.54 (Ref.)	2.54 (Ref.)
1	12.78	9.2	4.81	8.5	7.62	2.52	2.53
2	12.75	9.22	4.8	8.48	7.6	2.51	2.52
3	12.78	9.23	4.81	8.51	7.61	2.53	2.53
4	12.8	9.18	4.78	8.52	7.62	2.5	2.51
5	12.76	9.20	4.79	8.49	7.59	2.52	2.52
Average	12.77	9.21	4.8	8.5	7.61	2.52	2.52

Electrical Characteristics

Dimensions : Millimetres

Test Condition		
100kHz 0.1V	L	470µH ±10%
at 25°C	DCR	3.84Ω (Max.)
100kHz 0.1V Irms = 0.28A	L at Irms	ΔT 40°C (Max.)

Operating temperature : -55°C to +130°C

Note : Irms : Temperature rise 40°C

Material List

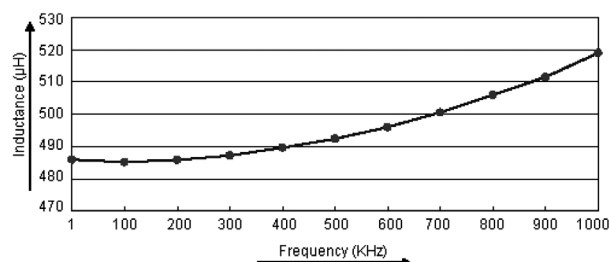
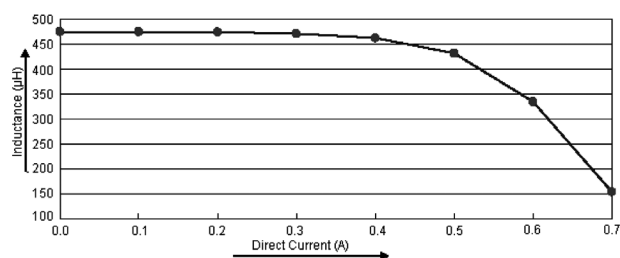
No.	Item	Material Description
1	Core	R5A DR4.8 × 4; R5A RI 8.4 × 4.1 × 6.85
2	Wire	Ø0.11mm × 1P 2UEWF 155°C
3	Solder (Lead Free)	99.3%Sn/0.7%Cu
4	Glue	TH320D/TH320-3
5	Base	SN-BS019.01 LCP

Newark.com/multicomp-pro
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Element14.com/multicomp-pro

Reliability Test

Test Item	Specifications	Test Method and Remarks
Solderability	The electrodes shall be at least 90% covered with new solder coating.	According to IEC68-2-20 Soldering temperature : 245 ±5°C Solder : Sn99.3% / Cu0.7% Flux : Rosin Immersion time : 5 ±1s
Soldering heat resistance	Appearance : No damage Inductance change : Within ±10% of initial value	Preheat temperature 150°C Preheat time : 1 min Solder temperature : 260 ±5°C Dipping time : 10 ±1s Measured at room temperature after placing for 24 hours.
Vibration (Out LAB)	Appearance : No damage All electrical and mechanical parameters within tolerance.	According to MIL-STD202 Method 204 Frequency : 10 to 55 Hz Amplitude : 1.52mm Direction and time X Y and Z direction for 2 hours each.
Humidity resistance test	Appearance : No damage All electrical and mechanical parameters within tolerance.	According to IEC68-2-1 Method Ca Temperature : 40 ±2°C Humidity : 90%-95% RH Test time : 500 ±2hrs The component should be stabilized at normal condition for 24 hours before test.
High temperature resistance test	Appearance : No damage All electrical and mechanical parameters within tolerance.	According to IEC68-2-2 Temperature : 85 ±3°C Test time : 500 +24 hrs The component should be stabilized at normal condition for 24 hours before test.
Low temperature resistance test	Appearance : No damage All electrical and mechanical parameters within tolerance.	According to IEC68-2-1 Method A (Ad) Temperature : -40 ±3°C Test time : 500 +24hrs The component should be stabilized at normal condition for 24 hours before test.
Temperature cycles test	Appearance : No damage All electrical and mechanical parameters within tolerance.	According to IEC68-2-14 Method N (Nb) High-temperature : 85 ±3°C duration 30 mins Room-temperature : 25 ±2°C duration 3 hrs Low-temperature : -40 ±3°C duration 30 mins Room-temperature : 25 ±2°C duration 3 hrs Number of cycle : 10 cycles The component should be stabilized at normal condition for 24 hours before test.

Electric Characteristics



Test Data for Electrical

Test Item	L μH	DCR Ω	L at Irms μH
Condition	100kHz 0.1V	at 25°C	100kHz 0.1V Irms = 0.42A
Specification	470 ±10%	3.84 (Max.)	ΔT 40°C (Max.)
1	467.8	3.17	OK
2	483.3	3.09	
3	472.5	3.13	
4	480.1	3.09	
5	475.4	3.1	
Average	475.82	3.11	OK

Part Number Table

Description	Part Number
Inductor, 470μH, 10%, SMD	MCBFS5220-471KU

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