



深圳市佑驰电子有限公司

Specification for Approval

产品名称： 大电流扁线电感
规格型号： HCZH-3218-4R7-M
产品编号：
日期： 2024-04-21

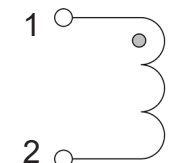
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核准	审核	制作
	Aaron	Ada

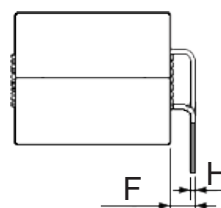
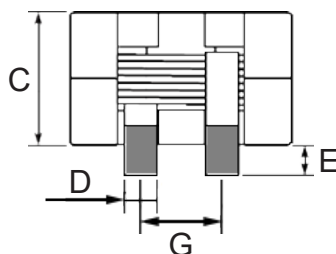
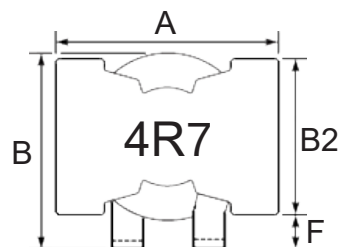
Explanation of part numbers:

HCZH	-	3218	-	4R7	-	M
Series Codes		Size Codes		Inductance Codes		Tolerance

Schematic:

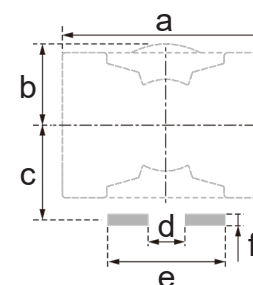


Product dimensions:(mm)



A	33.5Max.	a	33.0Ref.
B	28.0±1.0	b	13.5Ref.
B2	23.0Max.	c	14.0Ref.
C	18.8Max.	d	4.5Ref.
D	6.0±0.3	e	19.5Ref.
E	4.0±1.0	f	1.5Ref.
F	4.0Ref.		
G	12.0±1.0		
H	1.0±0.1		

PCB Layout:

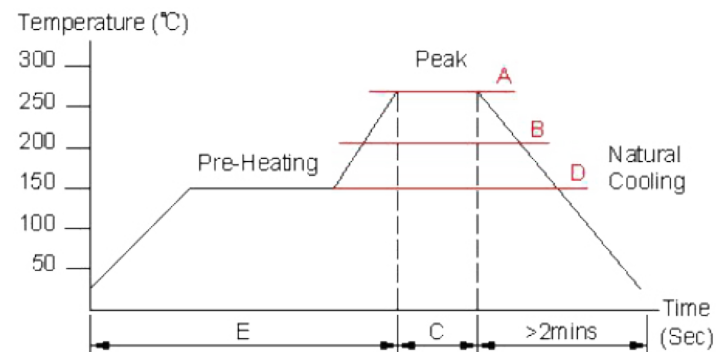


Electrical characteristics:

Item P/N	Inductance	Heat Rating DC Current(I _{dc})	Saturation DC Current(I _{sat})	DCR	
	100KHz,0.1V				
	(μH)			(mΩ)	
	±10%			Typ.	Max.
HCZH-3218-4R7-M	4.7	45.0	70.0	1.30	1.45

- All test data is referenced to 25°C ambient.
- I_{rms}:DC current(A) that will cause an approximate ΔT of 40°C.
- I_{sat}:DC current(A) that will cause L_o to drop approximate 30%.
- Operating temperature range: -40°C to 125°C .
- Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part temperature. Part temperature should be verified in the end application.

Recommended soldering temp. graph:



A	B	C	D	E
260°C	230°C	8-10Sec	150°C	60~240Sec

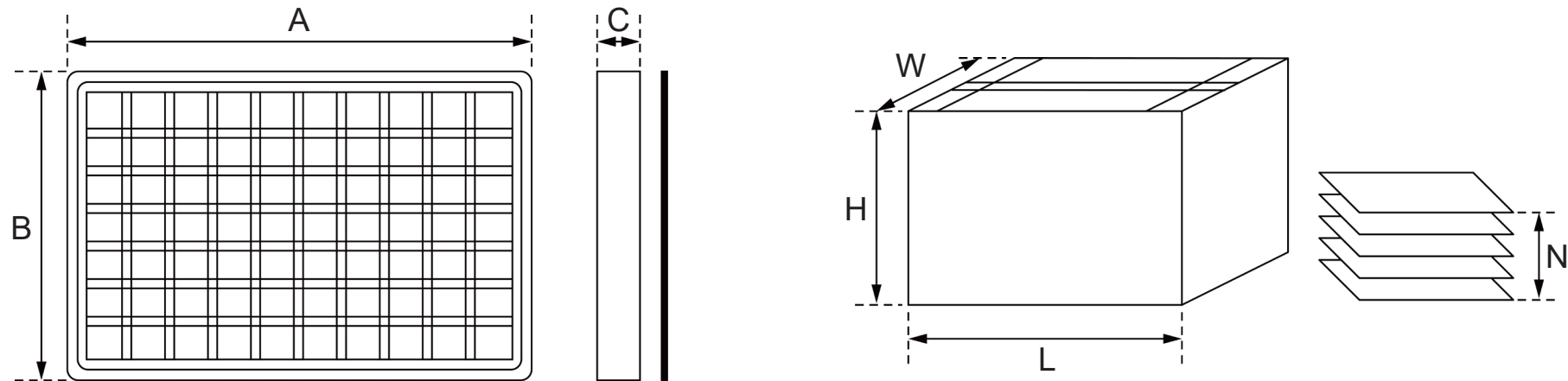
Mechanical reliability:

TEST	Specification & Requirement	Method Used
Solderability	The surface of terminal/pin tested shall be covered with new solder by 95%	Solder heat proof.
		Preheating: 180±10°C 90 seconds
		Soldering: 255±5°C for 3±1 sec
Shock	Inductance change within ±5% Without mechanical damage	Drop down with 981m/s ² (100G) shock Attitude upon a rubber block method shock testing machine, 3 tests.
Vibration	Inductance change within ±5% Without mechanical damage	Vibration frequency: 10Hz to 55Hz to 10Hz, 60 seconds cycle Vibration time: 2 hours

Endurance reliability:

TEST	Specification & Requirement	Method Used
Thermal Shock	Inductance change within ± 5% Without mechanical damage	-25°C, (30 mins) -> room temp. (5 mins) -> 125°C, (30 mins) -> room temp. (5 mins) 100 cycles
Heat Resistance	Inductance change within ± 5% Without mechanical damage	Apply IDC current @ 85°C ambient Duration: 1000 hrs
Humidity Resistance	Inductance change within ± 5% Without mechanical damage	Apply IDC current @ 60°C ambient Humidity: 90~95% Duration: 1000 hrs
Low Temp. Storing	Inductance change within ± 5% Without mechanical damage	Storing Temp. -25±2°C for total 1,000+4/-0 hours
High Temp. Storing	Inductance change within ± 5% Without mechanical damage	Storing Temp. 125±2°C for total 1,000+4/-0 hours

Packing information:



Unit:(mm)

A	B	C	L	W	H	Plastic Plate (pcs/PET Box)	N layers (per box)	Outer Box (pcs/ Box)
322	202	28	340	215	220	28	6	168