INDUCTORS



Inductors for power circuits **Wound ferrite VLB** series









VLB10090HT-GT type













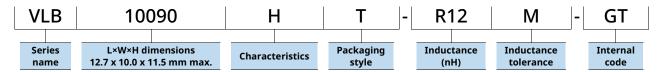
FEATURES

- This is a power supply circuit for SMD inductors using low-loss ferrite materials.
- OLarge current and lower DCR were achieved by the connecting wire-less structure.
- The stand up structure can be implemented in the lower part, and space saving can be realized.
- Operating temperature range: -40 to 125°C (is self-temperature rise)

APPLICATION

OServers, BTS, VRM, others

PART NUMBER CONSTRUCTION



CHARACTERISTICS SPECIFICATION TABLE

L		Measuring frequency	DC resistance		Rated curi	rent*	Part No.
					Isat	Itemp	
(µH)	Tolerance	(kHz)	(mΩ)	Tolerance	(A)typ.	(A)typ.	
0.10	±20%	100	0.33	±10%	125	60	VLB10090HT-R10M-GT

^{*} Rated current: smaller value of either lsat or Itemp.

Isat: When based on the inductance change rate (20% below the nominal value)

Itemp: When based on the temperature increase (temperature increase of 40°C by self heating)

Measurement equipment

Measurement item	Product No.	Manufacturer
L	4194A	Keysight Technologies
DC resistance	3541	HIOKI
Rated current Isat	3260+3265B	Wayne Kerr Electronics

^{*} Equivalent measurement equipment may be used.

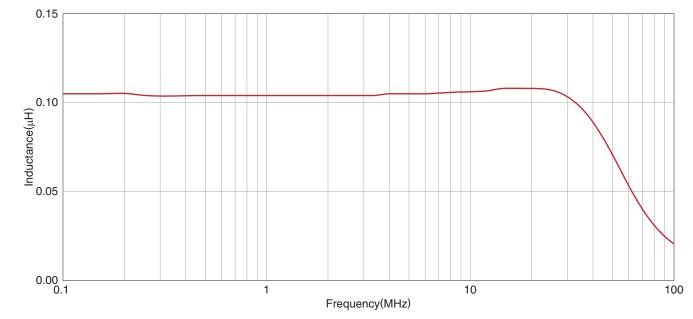


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VLB10090HT-GT type

L FREQUENCY CHARACTERISTICS

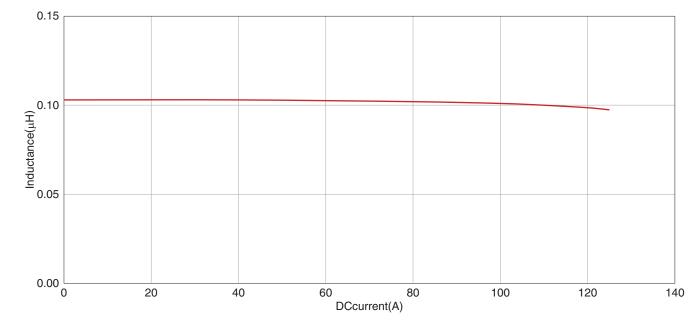


Measurement equipment

Product No.	Manufacturer		
4294A	Keysight Technologies		

^{*} Equivalent measurement equipment may be used.

INDUCTANCE VS. DC BIAS CHARACTERISTICS



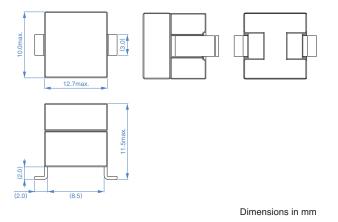
Measurement equipment

Product No.	Manufacturer	
3260B+3265B	Wayne Kerr Electronics	
* Equivalent measurement equipment may be used.		

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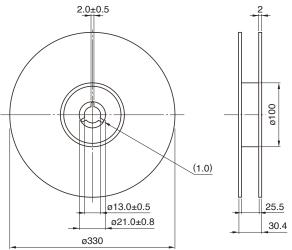
VLB10090HT-GT type

SHAPE & DIMENSIONS



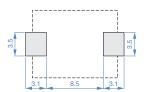
PACKAGING STYLE

REEL DIMENSIONS 2.0 ± 0.5



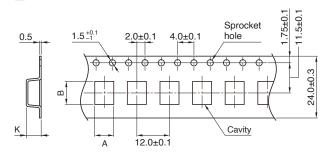
Dimensions in mm

RECOMMENDED LAND PATTERN



Dimensions in mm

TAPE DIMENSIONS



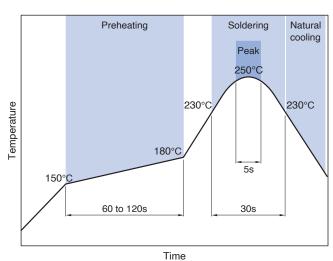
Dimensions in mm

Туре	Α	В	К
VLB10090HT-GT	10.1	12.9	12.5

□PACKAGE QUANTITY

Package quantity	300 pcs/reel
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RECOMMENDED REFLOW PROFILE



TEMPERATURE RANGE, INDIVIDUAL WEIGHT

Operating temperature range *	Storage temperature range **	Individual weight
-40 to +125 °C	-40 to +125 °C	4.1 g

^{*} Operating temperature range includes self-temperature rise.

^{**}The storage temperature range is for after the assembly.



REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using this products

REMINDERS

	_
RH or less).	torage conditions (temperature: 5 to 30°C, humidity: 10 to 75%
If the storage period elapses, the soldering of the terminal ele	ctrodes may deteriorate.
\bigcirc Do not use or store in locations where there are conditions su	ch as gas corrosion (salt, acid, alkali, etc.).
Before soldering, be sure to preheat components. The preheating temperature should be set so that the temper temperature does not exceed 150°C.	ature difference between the solder temperature and chip
Soldering corrections after mounting should be within the ran If overheated, a short circuit, performance deterioration, or lif	
When embedding a printed circuit board where a chip is mour due to the overall distortion of the printed circuit board and p	•
Self heating (temperature increase) occurs when the power is thermal design.	turned ON, so the tolerance should be sufficient for the set
Carefully lay out the coil for the circuit board design of the no A malfunction may occur due to magnetic interference.	n-magnetic shield type.
Ouse a wrist band to discharge static electricity in your body th	rough the grounding wire.
On not expose the products to magnets or magnetic fields.	
On not use for a purpose outside of the contents regulated in	the delivery specifications.
or quality require a more stringent level of safety or reliability damage to society, person or property.	ter equipment, personal equipment, office equipment, peration and use condition. rements of the applications listed below, whose performance and
(1) Aerospace/aviation equipment(2) Transportation equipment (cars, electric trains, ships, etc.)(3) Medical equipment(4) Power-generation control equipment	(7) Transportation control equipment(8) Public information-processing equipment(9) Military equipment(10) Electric heating apparatus, burning equipment

When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.

(5) Atomic energy-related equipment

(6) Seabed equipment

(11) Disaster prevention/crime prevention equipment

(13) Other applications that are not considered general-purpose

(12) Safety equipment

applications