VLB12065HT-R36M Datasheet

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DiGi Electronics Part Number	VLB12065HT-R36M-DG
Manufacturer	TDK Corporation
Manufacturer Product Number	VLB12065HT-R36M
Description	FIXED IND 360NH 27A 0.44MOHM SMD
Detailed Description	360 nH Unshielded Drum Core, Wirewound Inductor 27 A 0.44mOhm Max Nonstandard

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RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
VLB12065HT-R36M	TDK Corporation
Series:	Product Status:
VLB	Active
Type:	Material - Core:
Drum Core, Wirewound	Ferrite
Inductance:	Tolerance:
360 nH	±20%
Current Rating (Amps):	Current - Saturation (Isat):
27 A	35A
Shielding:	DC Resistance (DCR):
Unshielded	0.44mOhm Max
Q @ Freq:	Frequency - Self Resonant:
-	-
Ratings:	Operating Temperature:
-	-40°C ~ 125°C
Inductance Frequency - Test:	Mounting Type:
1 MHz	Surface Mount
Package / Case:	Supplier Device Package:
Nonstandard	-
Size / Dimension:	Height - Seated (Max):
0.457" L x 0.382" W (11.60mm x 9.70mm)	0.256" (6.50mm)

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8504.50.4000	

INDUCTORS

TDK

Inductors for power circuits
Wound ferrite
VLB series

RoHS REACH Halogen Free Lead Free

VLB12065 type

Product Portal Search Simulation Model Selection Guide Tech Library Tech Note Application Guides

FEATURES

- High-current SMD inductor.
- Low-profile design.
- High output processing capacity: Minimal copper loss
- High saturation current and low DC resistance.
- High operating frequency: Up to 2MHz
- Operating temperature range: –40 to 125°C (is self-temperature rise)

APPLICATION

- Personal computers, servers (Voltage Regulator Modules, etc.)
- Amusement equipment, AV equipment, etc.

PART NUMBER CONSTRUCTION

VLB	12065	H	T	-	R20	M
Series name	L×W×H dimensions 12.0 x 10.0 x 6.5 mm max.	Characteristics	Packaging style		Inductance (nH)	Inductance tolerance

CHARACTERISTICS SPECIFICATION TABLE

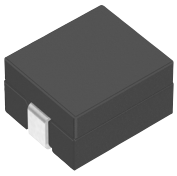
L (nH)	Tolerance	Measuring frequency (MHz)	DC resistance (mΩ)	Tolerance	Rated current* Isat (A)typ.	Itemp (A)typ.	Part No.
200	±20%	1	0.44	±6%	67	27	VLB12065HT-R20M
290	±20%	1	0.44	±6%	48	27	VLB12065HT-R29M
360	±20%	1	0.44	±6%	35	27	VLB12065HT-R36M

* Rated current: smaller value of either Isat 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

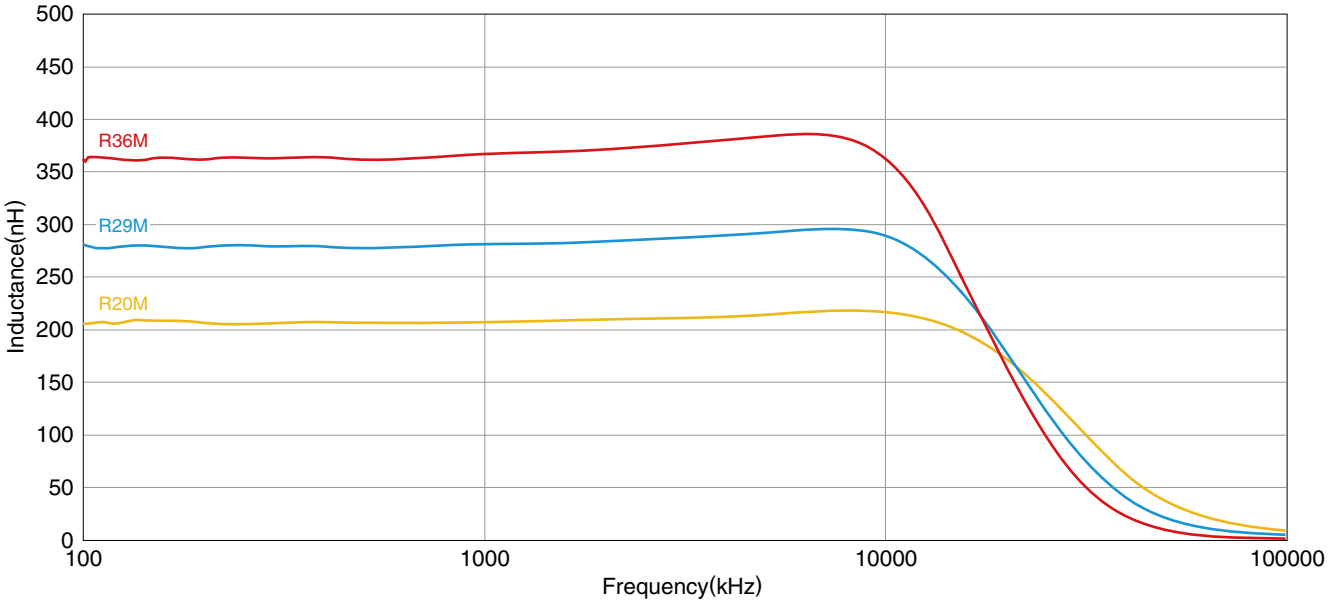
Measurement item	Product No.	Manufacturer
L	4194A	Keysight Technologies
DC resistance	3541	HIOKI
Rated current Isat	3260+3265B	Wayne Kerr Electronics

* Equivalent measurement equipment may be used.



VLB12065 type

L FREQUENCY CHARACTERISTICS

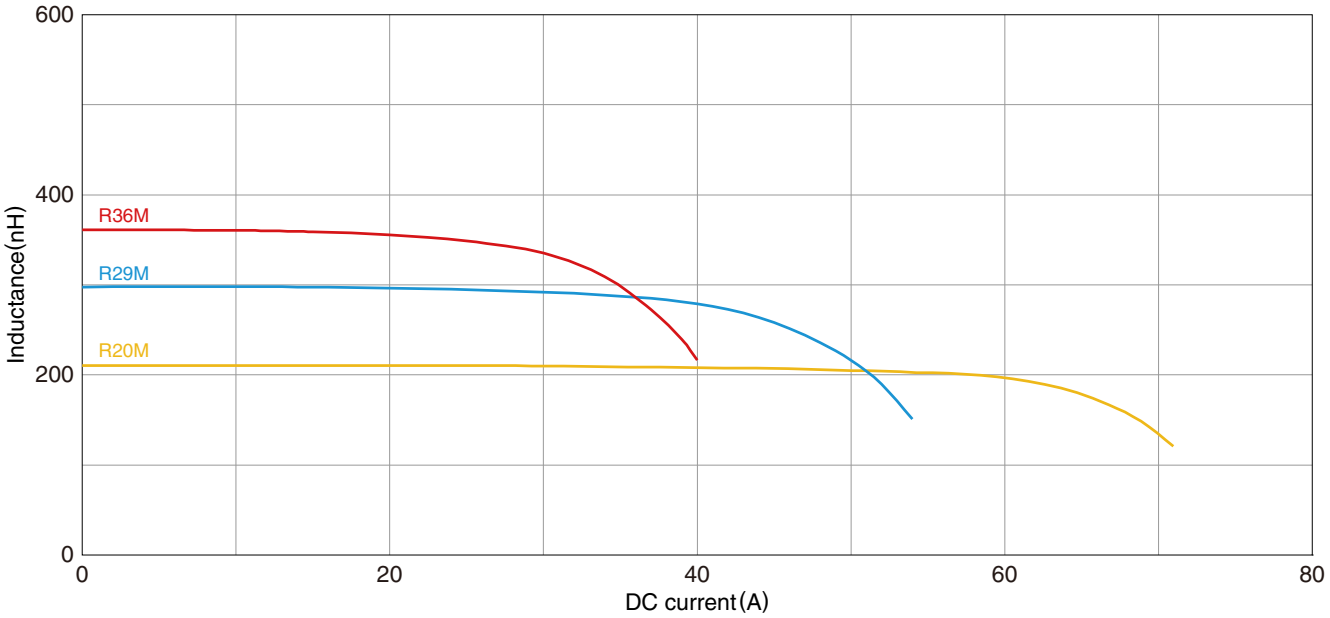


Measurement equipment

Product No.	Manufacturer
4294A	Keysight Technologies

* Equivalent measurement equipment may be used.

INDUCTANCE VS. DC BIAS CHARACTERISTICS



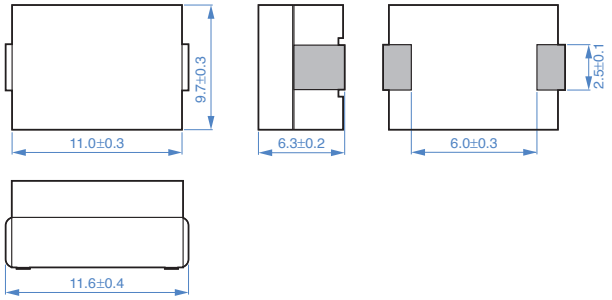
Measurement equipment

Product No.	Manufacturer
3260B+3265B	Wayne Kerr Electronics

* Equivalent measurement equipment may be used.

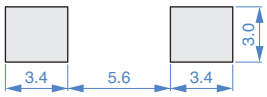
VLB12065 type

SHAPE & DIMENSIONS



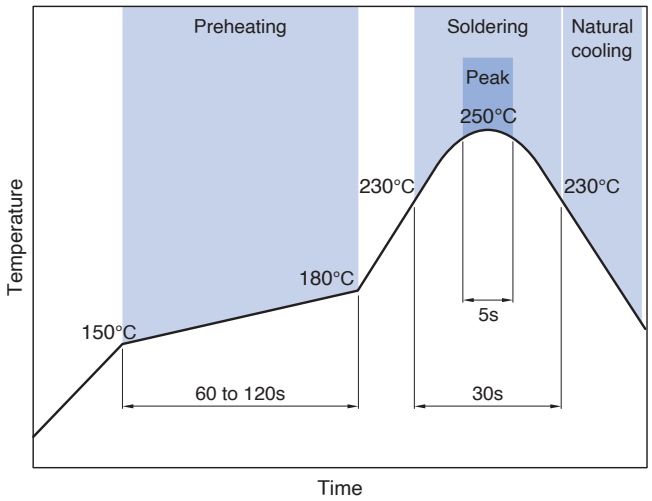
Dimensions in mm

RECOMMENDED LAND PATTERN



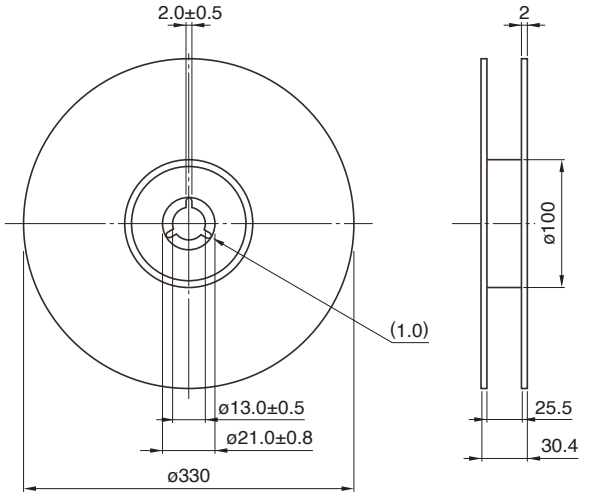
Dimensions in mm

RECOMMENDED REFLOW PROFILE



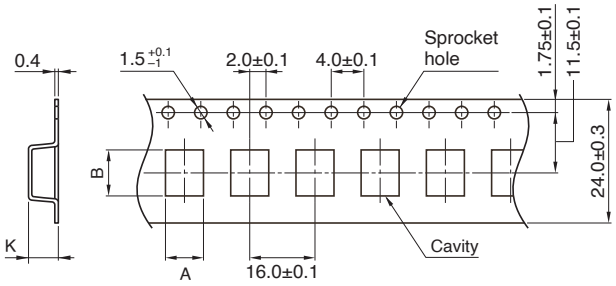
PACKAGING STYLE

REEL DIMENSIONS



Dimensions in mm

TAPE DIMENSIONS



Dimensions in mm

Type	A	B	K
VLB12065	10.2	12.2	6.7

PACKAGE QUANTITY

Package quantity	500 pcs/reel

TEMPERATURE RANGE, INDIVIDUAL WEIGHT

Operating temperature range *	Storage temperature range **	Individual weight
-40 to +125 °C	-40 to +125 °C	3.22 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

- The storage period is within 6 months. Be sure to follow the storage conditions (temperature: 5 to 30°C, humidity: 10 to 75% RH or less).
  If the storage period elapses, the soldering of the terminal electrodes may deteriorate.
- Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).
- Before soldering, be sure to preheat components.
  The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C.
- Soldering corrections after mounting should be within the range of the conditions determined in the specifications.
  If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
- When embedding a printed circuit board where a chip is mounted to a set, be sure that residual stress is not given to the chip due to the overall distortion of the printed circuit board and partial distortion such as at screw tightening portions.
- Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- Carefully lay out the coil for the circuit board design of the non-magnetic shield type.
  A malfunction may occur due to magnetic interference.
- Use a wrist band to discharge static electricity in your body through the grounding wire.
- Do not expose the products to magnets or magnetic fields.
- Do not use for a purpose outside of the contents regulated in the delivery specifications.
- The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.
  The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.
  If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please contact us.

(1) Aerospace/aviation equipment
(2) Transportation equipment (cars, electric trains, ships, etc.)
(3) Medical equipment
(4) Power-generation control equipment
(5) Atomic energy-related equipment
(6) Seabed equipment
(7) Transportation control equipment
(8) Public information-processing equipment
(9) Military equipment
(10) Electric heating apparatus, burning equipment
(11) Disaster prevention/crime prevention equipment
(12) Safety equipment
(13) Other applications that are not considered general-purpose applications

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.

OUR CERTIFICATE

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