

VLB12065HT-R36M Datasheet



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 Inducto r 27 A 0.44mOhm Max Nonstandard

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Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
VLB12065HT-R36M	TDK Corporation
Series:	Product Status:
VLB	Active
Туре:	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:	Mois
ROHS3 Compliant	1 (U
REACH Status:	ECCM
REACH Unaffected	EARS
HTSUS:	
8504.50.4000	

Moisture Sensitivity Level (MSL)	:
1 (Unlimited)	
ECCN:	
EAR99	

The products in this catal by an the first recommended for the Fight 360NH 27A 0.44MOHM SMD

INDUCTORS

Inductors for power circuits Wound ferrite VLB series



公TDK

VLB12065 type



FEATURES

OHigh-current SMD inductor.

OLow-profile design.

High output processing capacity: Minimal copper loss

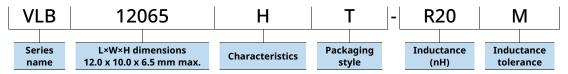
OHigh saturation current and low DC resistance.

High operating frequency: Up to 2MHz

Operating temperature range: -40 to 125°C (is self-temperature rise)

OPersonal computers, servers (Voltage Regulator Modules, etc.) OAmusement equipment, AV equipment, etc.

PART NUMBER CONSTRUCTION



CHARACTERISTICS SPECIFICATION TABLE

L		Measuring frequency	DC resi	stance	Rated curr	ent*	Part No.
					Isat	Itemp	
(nH)	Tolerance	(MHz)	(mΩ)	Tolerance	(A)typ.	(A)typ.	
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 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 $^{\circ}\mathrm{C}$ 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

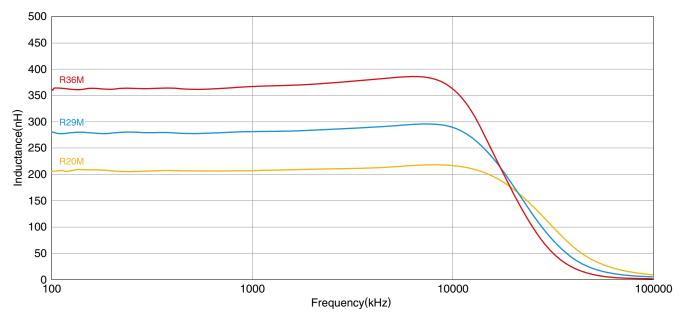
* Equivalent measurement equipment may be used.



(1/4) 20240411 INDUCTORS

VLB12065 type

L FREQUENCY CHARACTERISTICS

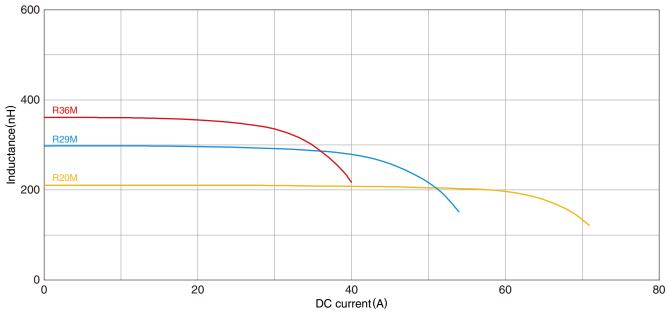


Measurement equipment

Product No.Manufacturer4294AKeysight 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

Equivalent measurement equipment may be used.

A Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

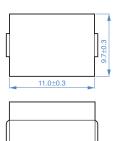
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INDUCTORS

VLB12065 type

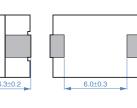
SHAPE & DIMENSIONS



11.6±0.4

3.4

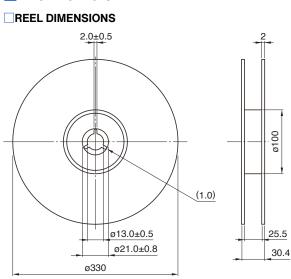
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Dimensions in mm

Dimensions in mm

PACKAGING STYLE



Dimensions in mm

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TAPE DIMENSIONS

 1.75 ± 0.1 11.5±0.1 Sprocket 1.5+0. 2.0±0.1 4.0±0.1 hole 0.4 24.0±0.3 m Cavity 16.0±0.1 А Dimensions in mm

Туре	А	В	К
VLB12065	10.2	12.2	6.7

PACKAGE QUANTITY

Κ

Package quantity 500 pcs/reel

TEMPERATURE RANGE, INDIVIDUAL WEIGHT

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

* Operating temperature range includes self-temperature rise.

** The storage temperature range is for after the assembly.

Preheating Soldering Natural cooling Peak 250°C 230°C 230°C Temperature 180°C 5s 150°C 60 to 120s 30s Time

RECOMMENDED REFLOW PROFILE

RECOMMENDED LAND PATTERN

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A Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

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INDUCTORS

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.
- Ouse a wrist band to discharge static electricity in your body through the grounding wire.
- ODo not expose the products to magnets or magnetic fields.
- ODo not use for a purpose outside of the contents regulated in the delivery specifications.
- OThe 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.

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