



# Clamp Filters (Ferrite Core with Case)

For automobile ECU

# ZCAT-V series

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ZCAT-V-BK

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## 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 these products.

#### REMINDERS

- The storage period is less than 6 months. Be sure to follow the storage conditions (Temperature: 5 to 40°C, Humidity: 10 to 75% RH or less).
- The case may crack when it is handled below freezing point or when it experiences a fall or other mechanical shock, as it is made of plastic; please exercise caution when handling the case.
- Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).
- In a case where the product is attached to a cable larger than the product's internal diameter, the ferrite core may be damaged. Please confirm compatibility with the cable before use.
- Dropping or forcible engagement may cause damage to the product. Please handle the product with care when engaging.
- Do not detach and reuse a product that has been engaged; this may damage the engaged portion.
- 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 (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.

# Clamp Filters (Ferrite Core with Case)

Product compatible with RoHS directive  
Halogen-free  
AEC-Q200

For automobile ECU

## Overview of the ZCAT-V Series

### FEATURES

- Easy to attach without having to cut cables.
- Compared to conventional products, has better mechanical strength and operating temperature range (−40 to +125°C).
- Self-adhering mechanism is used with the plastic case to prevent slippage on the cable after clamping.
- Excellent absorption of high frequency noise.
- Effective for common mode noise, so can be implemented as a noise countermeasure without influencing signal quality.
- Also effective for EMS (immunity) from surge noise, etc.

### APPLICATION

Optimal as a noise countermeasure for automotive ECUs.

### PART NUMBER CONSTRUCTION

ZCAT	12	V	(N2)	-	BK
Series name	Applicable cable outer diameter max. (mm)	Application code Automotive   V=Vehicle	Shape code		Outer color code BK   Black Only

### OPERATING TEMPERATURE RANGE, PACKAGE QUANTITY, PRODUCT WEIGHT

Type	Temperature range			Package quantity (pieces/box)	Individual weight (g)
	Operating temperature* (°C)	Storage condition after engagement (°C)	Temperature range for engagement work (°C)		
ZCAT08V-BK	−40 to +125	−40 to +125	0 to +50	350	17.0
ZCAT12V-BK	−40 to +125	−40 to +125	0 to +50	120	44.4
ZCAT12VN2-BK	−40 to +125	−40 to +125	0 to +50	150	45.5

\* Operating temperature range includes self-temperature rise.

- RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. <http://www.tdk.co.jp/rohs/>
- Halogen-free: Indicates that Cl content is less than 900ppm, Br content is less than 900ppm, and that the total Cl and Br content is less than 1500ppm.

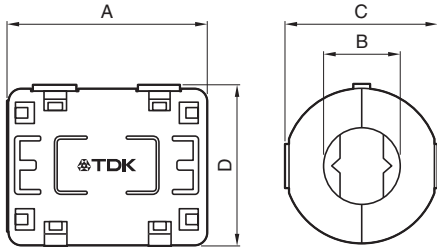
• All specifications are subject to change without notice.

ZCAT-V series

# ZCAT-V Type



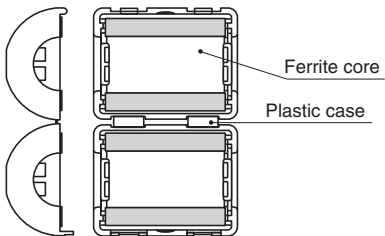
## SHAPE & DIMENSIONS



Dimensions in mm

Part No.	A	B	C	D	Applicable cable outer diameter
ZCAT08V-BK	32.5±1.5	8.0±1.5	18.4±1.5	18.9±1.5	8.0
ZCAT12V-BK	34.6±1.5	12.0±1.5	27.5±1.5	27.0±1.5	12.0

## INTERNAL CONSTRUCTION



# ZCAT-V series ZCAT-V Type

## ELECTRICAL CHARACTERISTICS

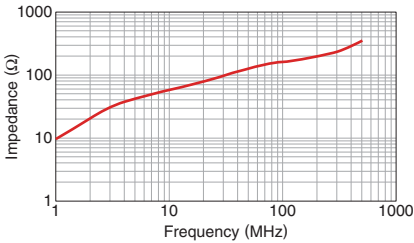
### CHARACTERISTICS SPECIFICATION TABLE

Part No.	ZCAT08V-BK	ZCAT12V-BK
Impedance( $\Omega$ )min. [100MHz]	120	140

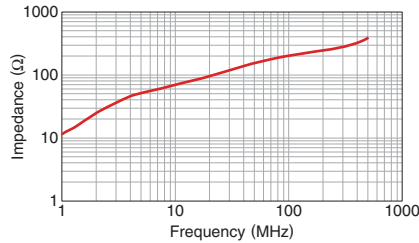
- Test conditions  
Impedance meter or equivalent/ $\phi$ 1mm solder plated copper wire passes through(1ts)/Unloaded

### IMPEDANCE VS. FREQUENCY CHARACTERISTICS

ZCAT08V



ZCAT12V



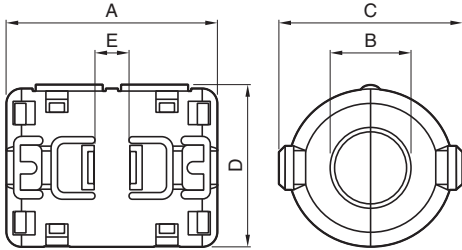
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ZCAT-V series

# ZCAT-VN2 Type



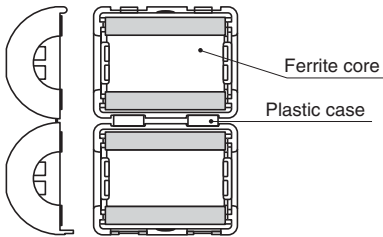
## SHAPE & DIMENSIONS



Dimensions in mm

Part No.	A	B	C	D	E	Applicable cable outer diameter
ZCAT12VN2-BK	34.6±1.5	12.5±1.5	31.2±1.5	27.2±1.5	(6.0)	12.0

## INTERNAL CONSTRUCTION



# ZCAT-V series ZCAT-VN2 Type

## ELECTRICAL CHARACTERISTICS

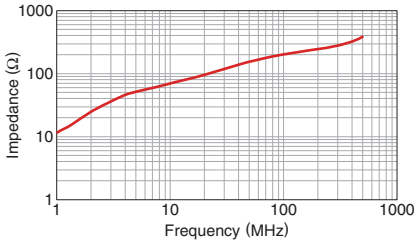
### CHARACTERISTICS SPECIFICATION TABLE

Part No.	ZCAT12VN2-BK
Impedance( $\Omega$ )min. [100MHz]	140

- Test conditions  
Impedance meter or equivalent/ $\phi$ 1mm solder plated copper wire passes through(1ts)/Unloaded

### IMPEDANCE VS. FREQUENCY CHARACTERISTICS

#### ZCAT12VN



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