

Clamp Filters (Ferrite Core with Case)

For cable

ZCAT series

Type: ZCAT
 ZCAT-A
 ZCAT-B
 ZCAT-D/-DT

Issue date: June 2012

- All specifications are subject to change without notice.
 - Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.
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Clamp Filters For Cable

Conformity to RoHS Directive

ZCAT Series

FEATURES

- Unique plastic case ensures simple, convenient installation and includes a self-holding mechanism to prevent slippage on cables.
- Ferrite core provides excellent absorption of high-frequency EMC.
- Highly effective as countermeasure against common mode EMC without adverse effect on signal quality.
- Large core size prevents saturation during large signal surges.

APPLICATIONS

Personal computers, word processors, monitors, hard disk drives, digital telephones, audio devices, electronic musical instruments, video games, copiers and facsimiles

PRODUCT IDENTIFICATION

| | | | | | | | | |
|------|-----|-----|-----|-----|-----|-----|-----|-----|
| ZCAT | 24 | 36 | - | 13 | 30 | A | - | BK |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |

- (1) Series name
 (2) Outer dimensions(mm)
 (3) Length(mm)
 (4) Inner dimensions(mm)
 (5) Material code
 (6) Fixed type code
 A: Cable fixed
 Hold the cable to secure it with the main body
 B: Clamp fixed
 D: Flat cable type
 DT: Flat cable type (Hold with adhesive pad.)
 Non code: Band fixed
 (Secure the cable and main body with the nylon belt.)
 (7) Outer color code
 BK: Black
 Non code: Gray

TEMPERATURE RANGES

| | |
|---------------------------------------|--------------|
| Operating temperature range | -40 to +85°C |
| Temperature range for engagement work | 0 to +50°C |



PACKAGING STYLE AND QUANTITIES

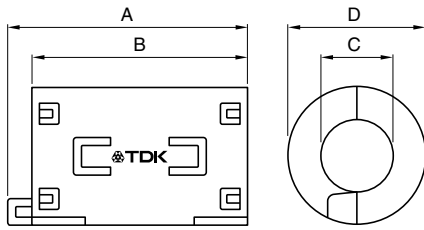
| Type | Quantity |
|------------|-----------------|
| ZCAT3035 | 200 pieces/box |
| ZCAT2017-B | 350 pieces/box |
| ZCAT2235 | 400 pieces/box |
| ZCAT2436 | 400 pieces/box |
| ZCAT2032 | 420 pieces/box |
| ZCAT2035 | 480 pieces/box |
| ZCAT2132 | 480 pieces/box |
| ZCAT1730 | 840 pieces/box |
| ZCAT2017 | 640 pieces/box |
| ZCAT1325 | 1344 pieces/box |
| ZCAT1518 | 896 pieces/box |
| ZCAT3618-D | 480 pieces/box |
| ZCAT4625-D | 240 pieces/box |
| ZCAT6819-D | 160 pieces/box |
| ZCAT10D | 770 pieces/box |
| ZCAT13D | 500 pieces/box |
| ZCAT20D | 280 pieces/box |

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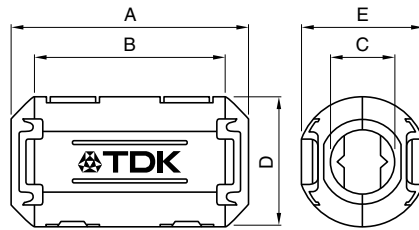
• All specifications are subject to change without notice.

SHAPES AND DIMENSIONS

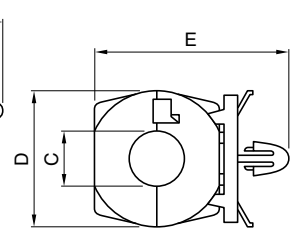
ZCAT



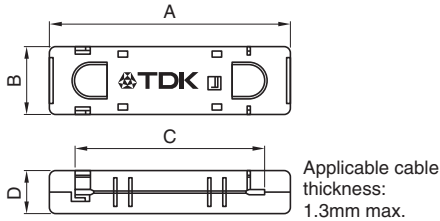
ZCAT-A



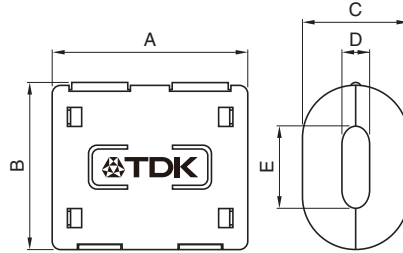
ZCAT-B



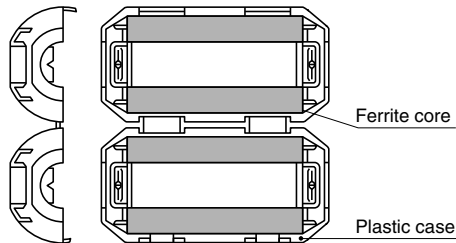
ZCAT-D, ZCAT-DT



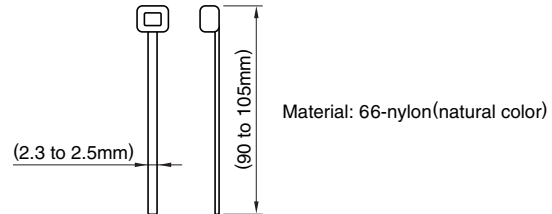
ZCAT10D, 13D, 20D



INTERNAL CONSTRUCTION



STRUCTURE OF THE MOUNTING BAND



| Part No. | Dimensions in mm | | | | | Applicable cable outer diameter | Weight (g) | Impedance freq. characteristics Fig. |
|------------------------|------------------|--------|------|--------|--------|---------------------------------|------------|--------------------------------------|
| | A | B | C | D | E | | | |
| ZCAT1518-0730(-BK)*1 | 22±1 | 18±1 | 7±1 | 15±1 | – | 7max. | 6.1 | 1 |
| ZCAT2017-0930(-BK)*1 | 21±1 | 17±1 | 9±1 | 20±1 | – | 9max. | 7.0 | 2 |
| ZCAT2032-0930(-BK)*1 | 36±1 | 32±1 | 9±1 | 19.5±1 | – | 9max. | 22.7 | 3 |
| ZCAT2132-1130(-BK)*1 | 36±1 | 32±1 | 11±1 | 20.5±1 | – | 11max. | 21.6 | 4 |
| ZCAT3035-1330(-BK)*1 | 39±1 | 34±1 | 13±1 | 30±1 | – | 13max. | 64.8 | 5 |
| ZCAT1325-0530A(-BK) | 25±1 | 20±1 | 5±1 | 12.8±1 | 11.2±1 | 3 to 5(USB) | 6.37 | 4 |
| ZCAT1730-0730A(-BK) | 30±1 | 23±1 | 7±1 | 16.5±1 | 15±1 | 4 to 7(USB/IEEE1394) | 11.6 | 6 |
| ZCAT2035-0930A(-BK) | 35±1 | 28±1 | 9±1 | 19.5±1 | 17.4±1 | 6 to 9 | 21.2 | 3 |
| ZCAT2235-1030A(-BK) | 35±1 | 28±1 | 10±1 | 21.5±1 | 20±1 | 8 to 10 | 26.0 | 7 |
| ZCAT2436-1330A(-BK) | 36±1 | 29±1 | 13±1 | 23.5±1 | 22±1 | 10 to 13 | 29.0 | 8 |
| ZCAT2017-0930B(-BK) | 21±1 | 17±1 | 9±1 | 20±1 | (29) | 9max. | 11.5 | 2 |
| ZCAT3618-2630D(-BK) | 33.5±1 | 17.5±1 | 26±1 | 11.5±1 | – | For 20 wires flat cable | 15.6 | 9 |
| ZCAT3618-2630DT(-BK)*2 | 33.5±1 | 17.5±1 | 26±1 | 12.5±1 | – | For 20 wires flat cable | 15.6 | 9 |
| ZCAT4625-3430D(-BK) | 45.5±1 | 24.5±1 | 34±1 | 12±1 | – | For 26 wires flat cable | 32.5 | 10 |
| ZCAT4625-3430DT(-BK)*2 | 45.5±1 | 24.5±1 | 34±1 | 13±1 | – | For 26 wires flat cable | 32.5 | 10 |
| ZCAT6819-5230D(-BK) | 67.5±1 | 18.5±1 | 52±1 | 16±1 | – | For 40 wires flat cable | 58.4 | 10 |
| ZCAT6819-5230DT(-BK)*2 | 67.5±1 | 18.5±1 | 52±1 | 17±1 | – | For 40 wires flat cable | 58.4 | 10 |
| ZCAT 10D(-BK) | 27±1 | 14.5±1 | 10±1 | 4±1 | 7±1 | 4max. | 5.6 | 11 |
| ZCAT 13D(-BK) | 34±1 | 20±1 | 13±1 | 5±1 | 8.5±1 | 5max. | 14.8 | 12 |
| ZCAT 20D(-BK) | 35±1 | 30±1 | 20±1 | 5±1 | 15±1 | 5max. | 46.3 | 13 |

*1 These products are delivered with fixed band.

*2 ZCAT-DT type: Adapted for flat cables and hold with adhesive pad.

• ZCAT-B type: Clamp fixed type installation hole diameter ϕ 4.8 to 4.9mm, thickness of board 0.5 to 2mm.

ELECTRICAL CHARACTERISTICS

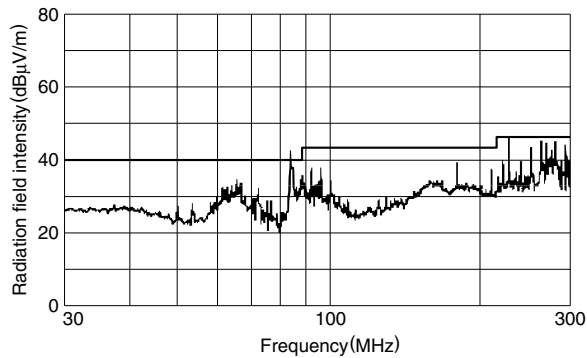
| Part No. | Impedance (Ω) min. | | |
|------------------------|-----------------------------|-----------------|----------------|
| | [10 to 100MHz] | [100 to 500MHz] | [50 to 500MHz] |
| ZCAT1518-0730(-BK) | 25 | 50 | — |
| ZCAT2017-0930(-BK) | 20 | 50 | — |
| ZCAT2032-0930(-BK) | 50 | 100 | — |
| ZCAT2132-1130(-BK) | 40 | 80 | — |
| ZCAT3035-1330(-BK) | 80 | 150 | — |
| ZCAT1325-0530A(-BK) | 50 | 100 | — |
| ZCAT1730-0730A(-BK) | 40 | 80 | — |
| ZCAT2035-0930A(-BK) | 50 | 100 | — |
| ZCAT2235-1030A(-BK) | 50 | 100 | — |
| ZCAT2436-1330A(-BK) | 30 | 80 | — |
| ZCAT2017-0930B(-BK) | 20 | 50 | — |
| ZCAT3618-2630D(T)(-BK) | — | — | 30 |
| ZCAT4625-3430D(T)(-BK) | — | — | 35 |
| ZCAT6819-5230D(T)(-BK) | — | — | 35 |
| ZCAT 10D(-BK) | 25 | 70 | — |
| ZCAT 13D(-BK) | 40 | 100 | — |
| ZCAT 20D(-BK) | 60 | 150 | — |

• Test conditions: R-X meter at unloaded condition, ϕ 1mm solder plated copper wire passes through.

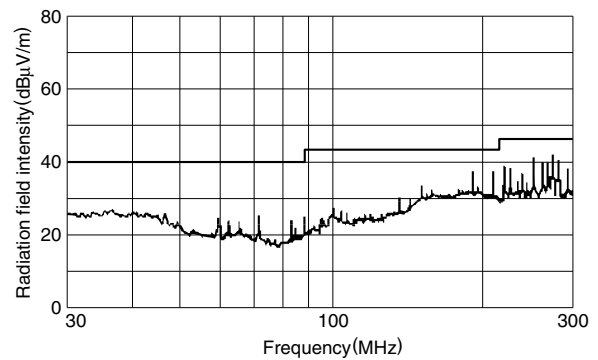
TYPICAL EMC SUPPRESSION EFFECTS

RADIATION LEVEL vs. FREQUENCY CHARACTERISTICS

Without EMC filter



With EMC filter ZCAT2035-0930A



TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS

ZCAT1518-0730

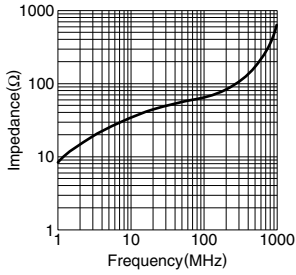


Fig.1

ZCAT2017-0930
ZCAT2017-0930B

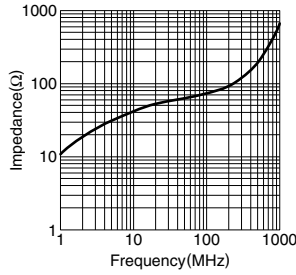


Fig.2

ZCAT2032-0930
ZCAT2035-0930A

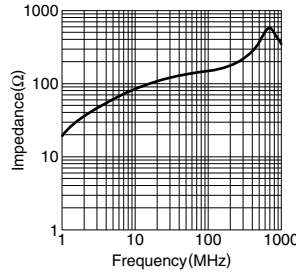


Fig.3

ZCAT2132-1130
ZCAT1325-0530A

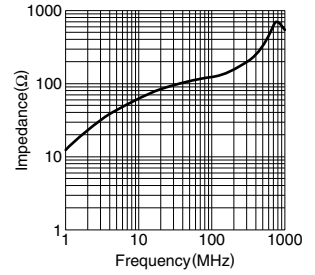


Fig.4

ZCAT3035-1330

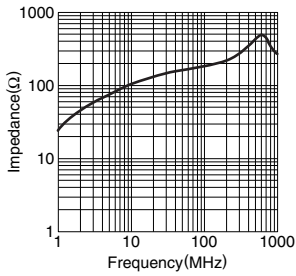


Fig.5

ZCAT1730-0730A

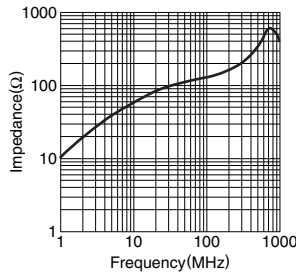


Fig.6

ZCAT2235-1030A

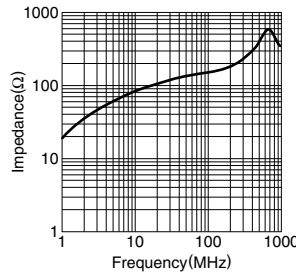


Fig.7

ZCAT2436-1330A

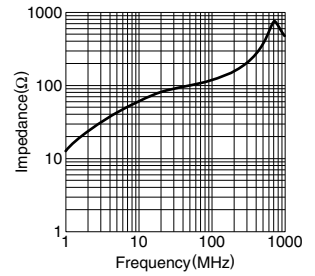


Fig.8

ZCAT3618-2630D(T)

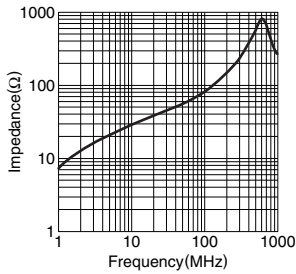


Fig.9

ZCAT4625-3430D(T)
ZCAT6819-5230D(T)

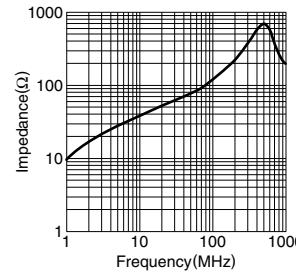


Fig.10

ZCAT10D

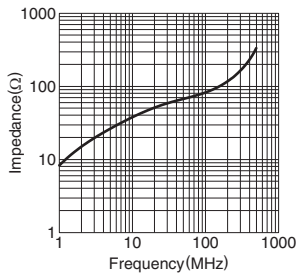


Fig.11

ZCAT13D

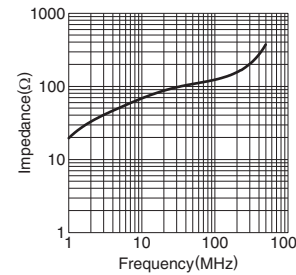


Fig.12

ZCAT20D

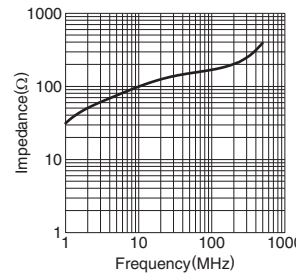


Fig.13

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