(1/2)

# Common Mode Filters(SMD) For Power Line

# **ACM-V** Series

## FEATURES

- · Have achieved miniaturization while keeping characteristics by adoption of exclusive square type closed magnetic cores.
- Due to the low profile design, it is suitable for a surface mount.
- · High impedance characteristic has been achieved a superior effect for common mode noise suppression.
- · This products have serialized a large current product up to 8A corresponding for various DC power lines.
- Operating temperature range has covered widely from -40 to +125°C.

### **APPLICATIONS**

Common mode noise countermeasures for DC power lines of electronic control equipment, multi-media equipment for automotives and various electronic equipment power supply lines.

#### PACKAGING STYLE AND QUANTITIES

| Packaging style | Туре   | Quantity         |  |
|-----------------|--------|------------------|--|
|                 | ACM70V | 1500 pieces/reel |  |
| Taping          | ACM90V | 800 pieces/reel  |  |
|                 | ACM12V | 500 pieces/reel  |  |

### **PRODUCT IDENTIFICATION**

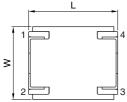
| ACM | 90V - | 701 | - 2PL - | ΤL  | -   |
|-----|-------|-----|---------|-----|-----|
| (1) | (2)   | (3) | (4)     | (5) | (6) |

- (1) Series name
- (2) Dimensional code
- (3) Impedance [at 100MHz] 701: 700Ω
- (4) Numbers of lines 2PL: 2 lines
- (5) Packaging style
  - TL: ø330mm reel taping
- (6) TDK internal code

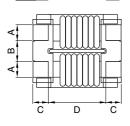
#### **TEMPERATURE RANGE**

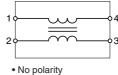
Operating

# SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM/RECOMMENDED PC BOARD PATTERN



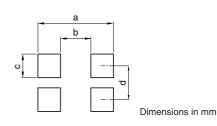






Coplanarity: 0.1max. Dimensions in mm

| Туре   | L        | W        | Т       | Α       | В       | С       | D       | Weight |
|--------|----------|----------|---------|---------|---------|---------|---------|--------|
| ACM70V | 7.0±0.2  | 6.0±0.2  | 3.5max. | 1.5±0.2 | 1.5±0.2 | 1.5±0.2 | 4.0typ. | 0.35g  |
| ACM90V | 9.0±0.2  | 7.0±0.2  | 4.5max. | 1.5±0.2 | 2.0±0.2 | 1.5±0.2 | 6.0typ. | 0.82g  |
| ACM12V | 12.0±0.3 | 11.0±0.3 | 6.0max. | 2.7±0.2 | 2.5±0.2 | 2.3±0.2 | 7.4typ. | 2.30g  |



-40 to +125°C

| Туре   | а    | b   | С   | d   |  |
|--------|------|-----|-----|-----|--|
| ACM70V | 9.0  | 4.0 | 1.5 | 3.0 |  |
| ACM90V | 11.0 | 6.0 | 1.5 | 3.5 |  |
| ACM12V | 14.0 | 7.4 | 2.7 | 5.2 |  |



• 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.

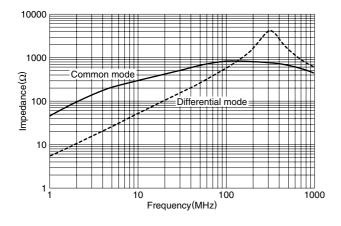
· All specifications are subject to change without notice.

(2/2)

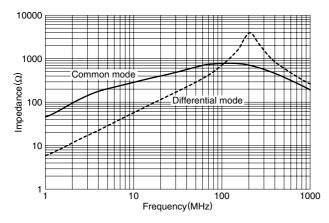
#### **ELECTRICAL CHARACTERISTICS**

| Part No.          | Common mode<br>impedance<br>(Ω)typ.[at 100MHz] | DC resistance<br>(MΩ)max. | Rated current<br>Idc<br>(A)max. | Rated voltage<br>Edc<br>(V)max. | Insulation<br>resistance<br>(MΩ)min. |
|-------------------|--|---------------------------|---------------------------------|---------------------------------|--------------------------------------|
| ACM70V-701-2PL-TL | 700  | 15                        | 4.0                             | 80                              | 10                                   |
| ACM90V-701-2PL-TL | 700  | 10                        | 5.0                             | 80                              | 10                                   |
| ACM12V-701-2PL-TL | 700  | 6                         | 8.0                             | 80                              | 10                                   |

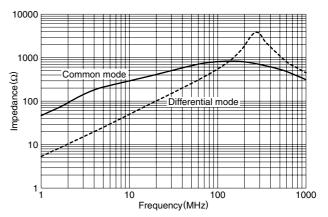
# TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS ACM70V-701-2PL



#### ACM12V-701-2PL



#### ACM90V-701-2PL



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