

## **Common Mode Filters(SMD)**

For power line of automotive ECU

### ACM-V series

**Type:**            **ACM70V**  
                      **ACM90V**  
                      **ACM12V**

**Issue date:**     **December 2010**

- 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.

# Common Mode Filters(SMD) For Power Line

Conformity to RoHS Directive

## 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  $+125^{\circ}\text{C}$ .

### 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	Type	Quantity
Taping	ACM70V	1500 pieces/reel
	ACM90V	800 pieces/reel
	ACM12V	500 pieces/reel

### PRODUCT IDENTIFICATION

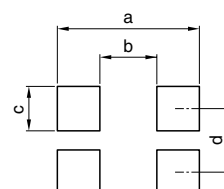
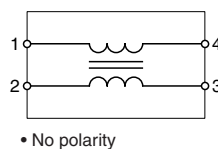
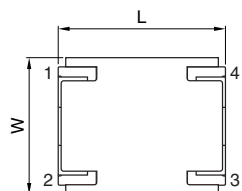
ACM 90V - 701 - 2PL - TL - □□  
(1) (2) (3) (4) (5) (6)

- (1) Series name
- (2) Dimensional code
- (3) Impedance [at 100MHz]  
701:  $700\Omega$
- (4) Numbers of lines  
2PL: 2 lines
- (5) Packaging style  
TL:  $\varnothing 330\text{mm}$  reel taping
- (6) TDK internal code

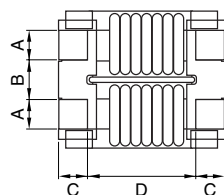
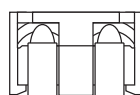
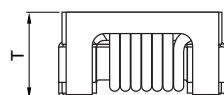
### TEMPERATURE RANGE

Operating  $-40$  to  $+125^{\circ}\text{C}$

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



Dimensions in mm

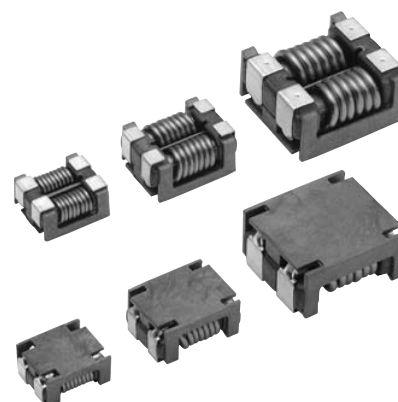


Coplanarity: 0.1max.

Dimensions in mm

Type	a	b	c	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

Type	L	W	T	A	B	C	D	Weight
ACM70V	$7.0\pm 0.2$	$6.0\pm 0.2$	3.5max.	$1.5\pm 0.2$	$1.5\pm 0.2$	$1.5\pm 0.2$	4.0typ.	0.35g
ACM90V	$9.0\pm 0.2$	$7.0\pm 0.2$	4.5max.	$1.5\pm 0.2$	$2.0\pm 0.2$	$1.5\pm 0.2$	6.0typ.	0.82g
ACM12V	$12.0\pm 0.3$	$11.0\pm 0.3$	6.0max.	$2.7\pm 0.2$	$2.5\pm 0.2$	$2.3\pm 0.2$	7.4typ.	2.30g



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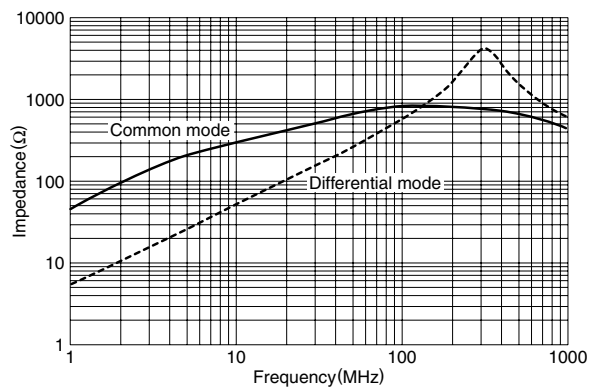
## ELECTRICAL CHARACTERISTICS

Part No.	Common mode impedance ( $\Omega$ ) typ.[at 100MHz]	DC resistance ( $m\Omega$ ) max.	Rated current $I_{dc}$ (A) max.	Rated voltage $E_{dc}$ (V) max.	Insulation resistance ( $M\Omega$ ) 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

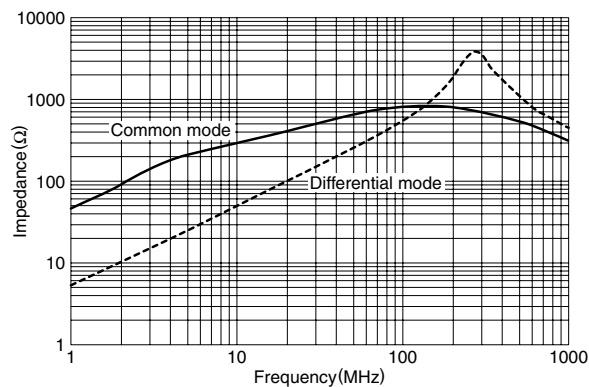
## TYPICAL ELECTRICAL CHARACTERISTICS

### IMPEDANCE vs. FREQUENCY CHARACTERISTICS

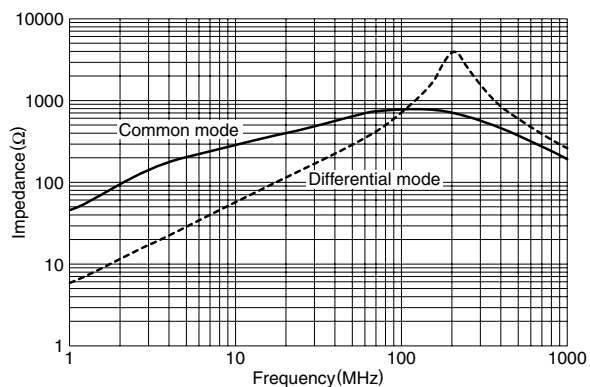
#### ACM70V-701-2PL



#### ACM90V-701-2PL



#### ACM12V-701-2PL



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