

# Common Mode Filters(SMD) For CAN-BUS/FlexRay

Conformity to RoHS Directive

## ACT Series ACT45B Type

### FEATURES

- Operating temperature range covers from  $-40$  to  $+150^{\circ}\text{C}$ .
- Non-dissolution of the abutment amounts in circuit board mounting.
- The products contain no lead and also support lead-free soldering.
- This product conforms to the standards that are slated to be introduced under the RoHS Directive.

### APPLICATIONS

CAN-BUS/FlexRay system, facsimiles, modems, ISDN

### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	2000 pieces/reel

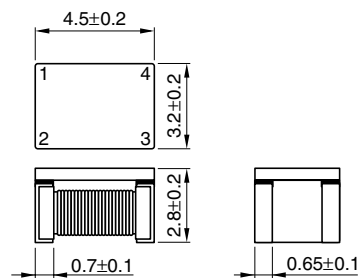
### PRODUCT IDENTIFICATION

ACT45B - 510 - 2P - TL -    

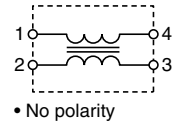
(1) (2) (3) (4) (5)

- (1) Series name  
 (2) Inductance value (typ.)  
 (3) Number of line  
 2P: 2-line  
 (4) Packaging style  
 TL:  $\phi 330\text{mm}$  reel taping  
 (5) TDK internal code

### SHAPES AND DIMENSIONS



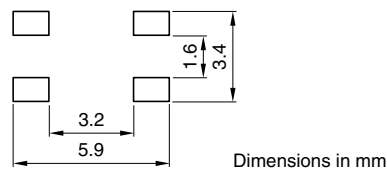
### CIRCUIT DIAGRAM



Weight: 0.14g

Dimensions in mm

### RECOMMENDED PC BOARD PATTERN



Dimensions in mm



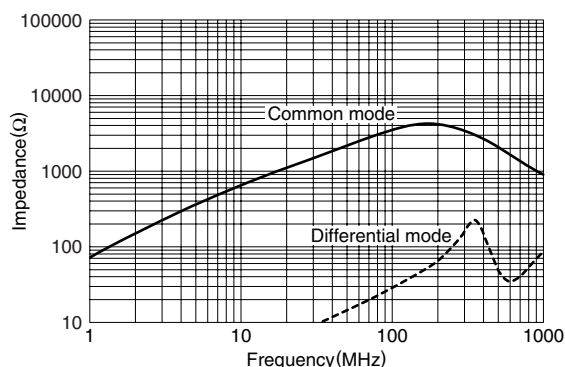
### ELECTRICAL CHARACTERISTICS

Part No.	Common mode impedance ( $\Omega$ )[10MHz]		Common mode inductance ( $\mu\text{H}$ )+50/-30% [100kHz]	Stray inductance ( $\mu\text{H}$ )typ. [100kHz]	DC resistance ( $\Omega$ )max.	Rated current (A)max.	Insulation resistance (M $\Omega$ )min.	Rated voltage (V)max.
	min.	typ.						
ACT45B-110-2P	300	700	11	0.05	0.6	0.25	10	50
ACT45B-220-2P	500	1000	22	0.08	1.0	0.2	10	50
ACT45B-510-2P	1000	2000	51	0.15	1.0	0.2	10	50
ACT45B-101-2P	2000	5000	100	0.20	3.0	0.15	10	50

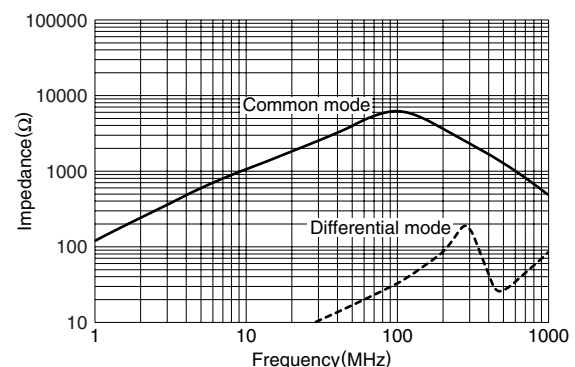
### TYPICAL ELECTRICAL CHARACTERISTICS

#### IMPEDANCE vs. FREQUENCY CHARACTERISTICS

##### ACT45B-110-2P



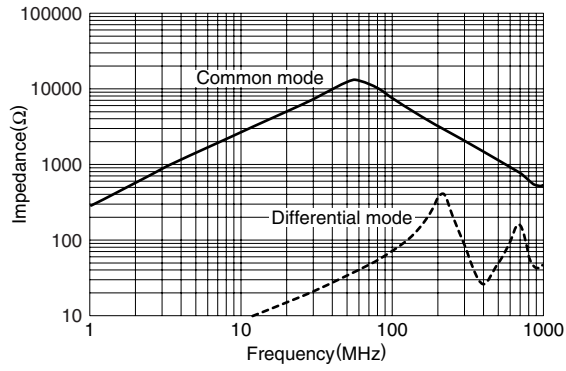
##### ACT45B-220-2P



• 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.

**TYPICAL ELECTRICAL CHARACTERISTICS**  
**IMPEDANCE vs. FREQUENCY CHARACTERISTICS**  
**ACT45B-510-2P**



**ACT45B-101-2P**

