



## CTJ-2 Series • Miniature SMD Common Mode Double Chokes

### Features

- Miniature, low cost SMD for pick and place compatability while providing consistent and reliable coplanarity
- Extended Operating Temperature Range: -40° to +125°C
- High attenuation over a wide frequency range - CAN bus types to 500MHz
- Other inductance values and special types for operation at 150°C ambient are available upon request
- Standard Inductance values from 11µH to 4.7mH
- Available in Bifilar (suffix BE) and Sector winding (Suffix SE)
- Materials: UL94-VO
- Manufactured in ISO-9001.2000 approved Talema facility



### Electrical Specifications @ 25°C

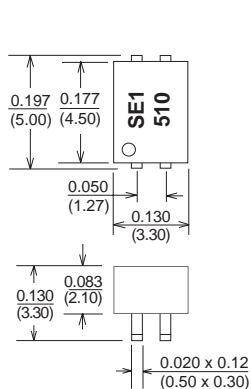
Part Number	$L_N$ (µH)	$I_N$ (mA)	$L_L$ (µH)	$R_{CU}$ (mOhms)	$V_T$ (Vrms)	Number of Data Lines
<b>Sector Winding for CAN bus and similiar applications</b>						
CTJ-2-110SE	11	250	.045	160	500	2
CTJ-2-220SE	22	250	1.30	195	500	2
CTJ-2-330SE	33	200	1.80	260	500	2
CTJ-2-510SE	51	200	2.70	300	500	2
<b>Bifilar Winding for Data and Signal Lines</b>						
CTJ-2-110BE	11	300	0.045	160	500	2
CTJ-2-101BE	100	300	0.15	180	500	2
CTJ-2-221BE	220	200	0.20	250	500	2
CTJ-2-471BE	470	200	0.08	300	500	2

### Test Conditions

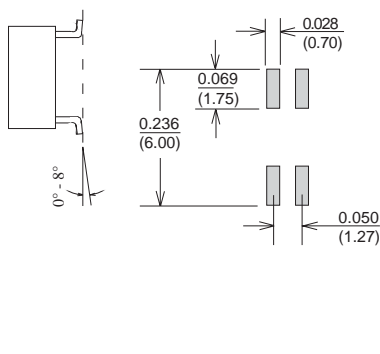
Rated Voltage: 42VAC (50/60Hz), 80 VDC  
 DC Resistance Ratings at 25°C ambient  
 Operating Temperature: -40° to +125°C  
 Storage Temperature: -40° to +125°C  
 Rated Inductance  $L_N$ :  $\leq 1\text{mH}$  measured @ 100kHz/0,1mA  
 $> 1\text{mH}$  measured @ 10kHz/0,1mA  
 Test Voltage: Vrms at 50/60Hz for 2 seconds, winding to winding

Inductance Tolerance:  $\leq 470\mu\text{H}$  :  $\pm 30\%$   
 $> 470\mu\text{H}$  : -30/+50%  
 Rated Current  $I_N$ : 50Hz and 60°C ambient  
 Leakage Inductance  $L_L$ :  $\leq 11\mu\text{H}$  measured @ 1 MHz, 5mA  
 $> 11\mu\text{H}$  measured @ 100kHz, 5mA  
 Climatic Catagory: 40/125/56 (-40°C/+125°C/56 days damp heat)  
 Weight: ~ 0.1 grams

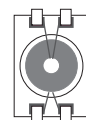
### Dimensions



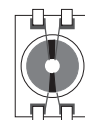
### Suggested Pad Layout



### Bifilar (BE) Winding



### Sector (SE) Winding



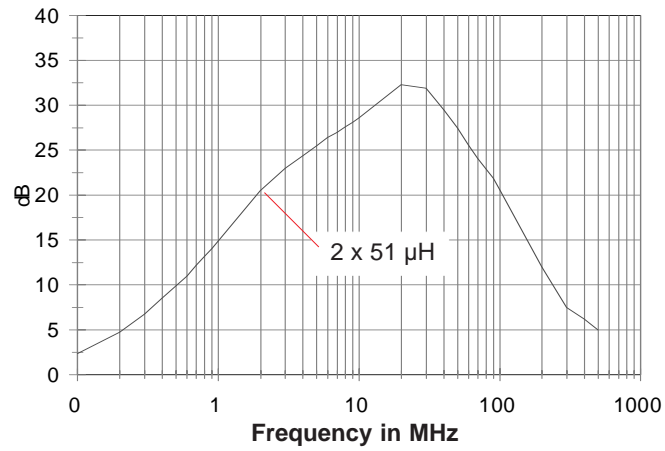
### Schematic



Dimensions: Inches (Millimeters) Tolerance:  $\pm 0.010$  (0.25) Surface Coplanarity will be 0.004(0.10) maximum

Germany: Int.+49 89-841 00-0 • Ireland: Int.+35 374 - 954 8666 • Czech Rep: Int.+420 37 - 744 9303 • India: Int.+91 427 - 244 1325  
<http://www.talema-nuvotem.com>

Typical Attenuation Characteristics  
Common Mode 50R System - Sector Winding



Impedance Performance  
Bifilar Winding

