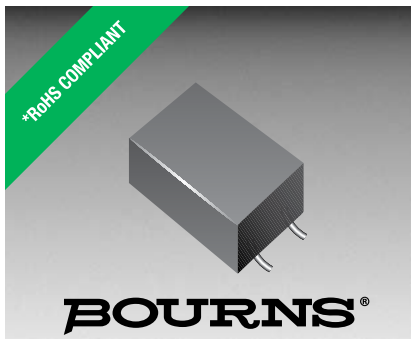




Features

- RoHS compliant*
- Sector windings
- Wide frequency range over 500 MHz
- Rated current 0.1 to .025 A
- High quality toroidal core

Applications

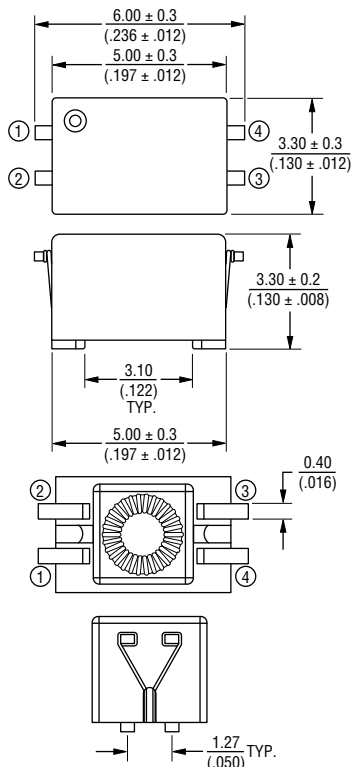
- For the suppression of EMI in data and signal lines

DR221 Series Surface Mount Data Line Chokes

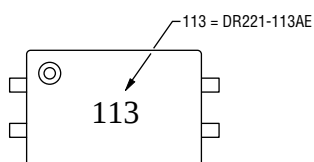
Electrical Specifications @ 25 °C

Bourns Part No.	L1, L2 @ 10 kHz, 0.1 Vrms (μH)	Freq. Range (MHz)	Impedance (Ω) Min.	RDC (Ω) (Each Wind- ing)		Rated Current (mA)
				Max.	Typ.	
DR221-113AE	11.0 +50 %/-30 %	100~500	450	0.18	0.13	250
DR221-223AE	22.0 +50 %/-30 %	40~300	900	0.23	0.17	250
DR221-333AE	33.0 +50 %/-30 %	30~250	1000	0.27	0.20	200
DR221-513AE	50.0 +50 %/-30 %	20~150	1400	0.32	0.24	200
DR221-474AE	470 +50 %/-30 %	2.5~60	1100	0.35	0.28	100

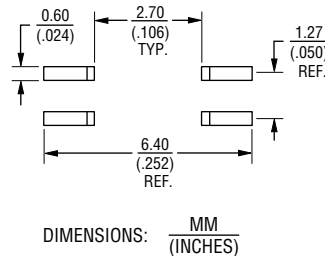
Product Dimensions



Typical Part Marking



Recommended PCB Layout



How to Order

Model **DR221 - 513 AE**
 Value/Tolerance _____
 See Model-Value Table
 Termination _____
 AE = Cu/Ni/Sn (Lead Free)

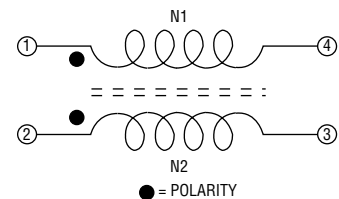
General Specifications

Rated Voltage 50 Vdc/100 Vac (ref.)
 Hipot (1 sec.) 500 Vac/60 Hz, 3 mA
 Operating Temperature.....-40 to +125 °C
 Storage Temperature.....-40 to +125 °C
 Temperature Rise
25 °C max. at rated current
 Resistance to Solder Heat
260 °C 10 sec.
 Moisture Sensitivity Level.....1
 ESD Classification (HBM).....N/A

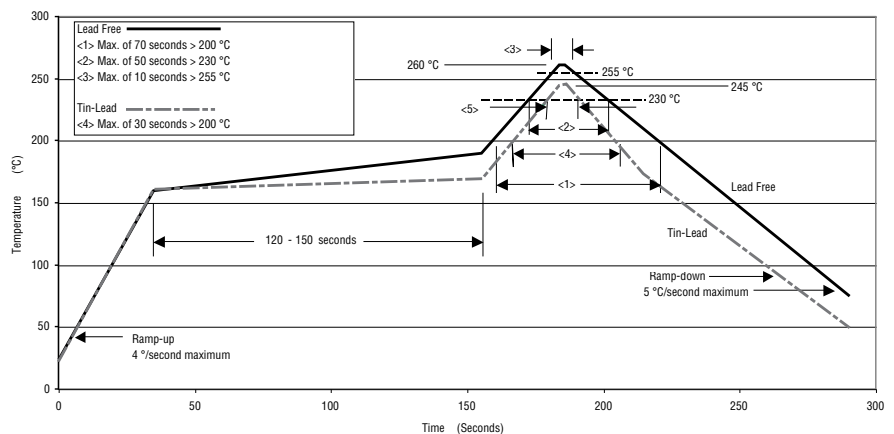
Materials

Core.....Ferrite
 Wire Enameled copper wire (Class F)
 BaseLCP (UL 94V-0)
 TerminalCu/Ni/Sn
 Adhesive.....Epoxy resin
 Weight2 g
 Packaging.....500 pcs. per reel

Schematic



Solder Profile



WARNING
 Cancer and Reproductive Harm
www.P65Warnings.ca.gov

* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
 Specifications are subject to change without notice.
 Users should verify actual device performance in their specific applications.
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BOURNS®

A log-log plot showing the impedance (Ohms) of five different AE sensors as a function of frequency (MHz). The y-axis ranges from 10 to 1000 Ohms, and the x-axis ranges from 1 to 1000 MHz. The curves represent the following sensors:

- 474AE**: Highest impedance at low frequencies, peaking around 1000 Ohms at 10 MHz.
- 513AE**: Peaks around 1500 Ohms at 50 MHz.
- 333AE**: Peaks around 1200 Ohms at 100 MHz.
- 223AE**: Peaks around 800 Ohms at 100 MHz.
- 113AE**: Lowest impedance at low frequencies, peaking around 600 Ohms at 100 MHz.

All sensors show a characteristic resonance peak that shifts to higher frequencies and increases in magnitude as the sensor number increases.

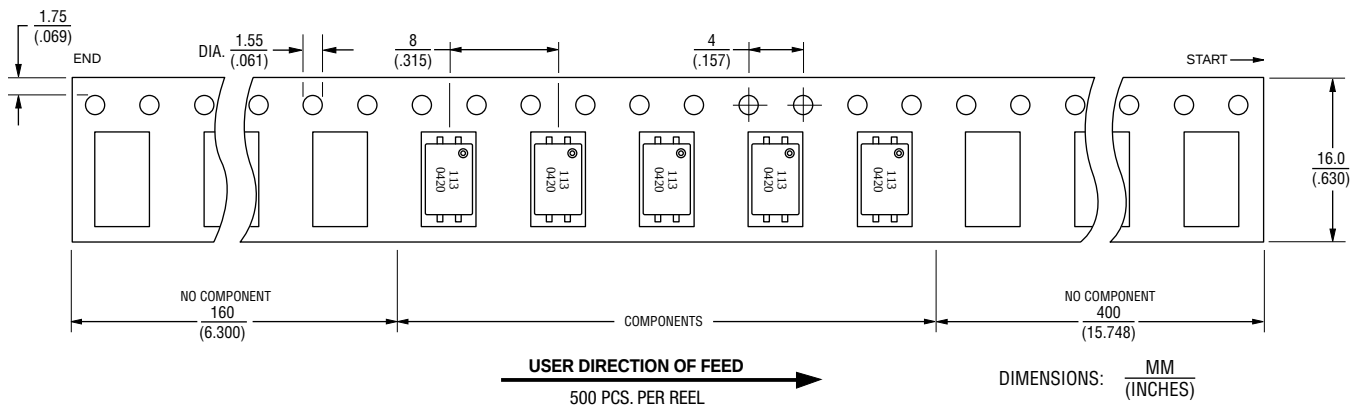
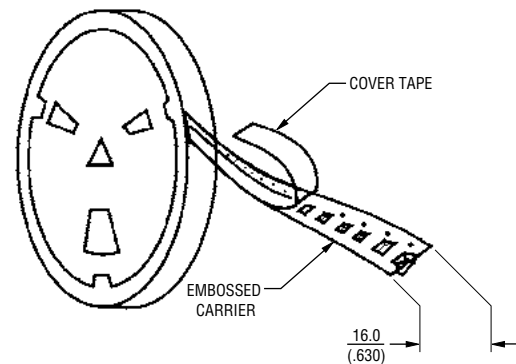
Technical drawing of a mechanical part, showing front and side views with dimensions in inches and millimeters.

Front View Dimensions:

- Overall width: 178.0 (7.00) DIA.
- Top hole diameter: 2.0 ± 0.5 (.079 ± .020)
- Inner hole diameter: 21.0 ± 0.8 (.827 ± .031)
- Bottom hole diameter: 13.0 (.512) DIA.

Side View Dimensions:

- Top hole diameter: 20.5 (.807)
- Inner hole diameter: 13.0 ± 0.5 (.512 ± .020) DIA.
- Distance between holes: 50.0 (1.969)
- Bottom hole diameter: 18.0 (.709)



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