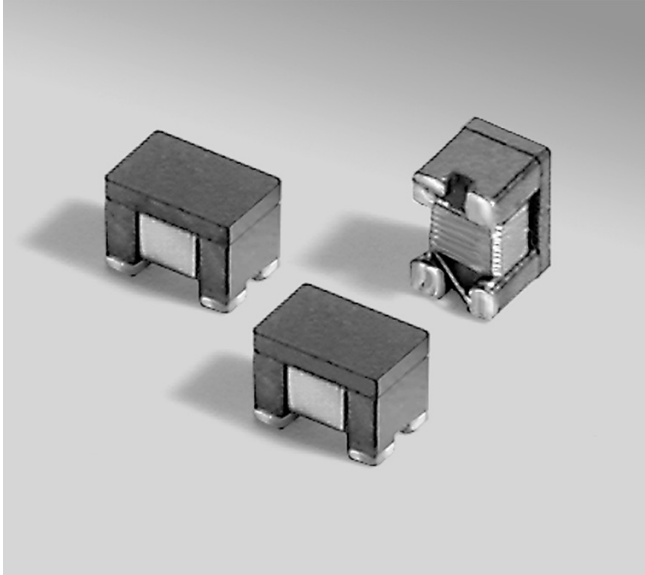


Common Mode Choke RA6870



- Recommended for use in the RX and TX sections of the Microchip MOST150 coaxial PHY application diagrams.
- Specified for the OS82150 MOST150 Coaxial Transceiver, OS81118 MOST150 INIC and OS81119 MOST150 Dual Port INIC

Core material Ferrite

Environmental RoHS compliant

Terminations Matte tin over nickel over silver-palladium-glass frit.

Ambient temperature -40°C to +125°C with Irms current

Storage temperature Component: -40°C to +125°C.

Tape and reel packaging: -40°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Packaging 2000/7" reel; 7500/13" reel; Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.14 mm pocket depth

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

Part number ¹	Common mode impedance max (kOhms)	Cutoff frequency ² (MHz)	Inductance ³ min (nH)	Irms ⁴ (mA)	DCR max ⁵ (Ohms)	Isolation ⁶ (Vrms)
RA6870-AL_	1.94 @ 700 MHz	590	700	300	0.69	250

1. When ordering, please specify **packaging** code:

RA6870-ALC

Packaging: C=7" machine-ready reel. EIA-481 embossed plastic tape (2000 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

D=13" machine-ready reel. EIA-481 embossed plastic tape (7500 parts per full reel).

B=Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

2. Frequency at which the differential mode attenuation equals 3 dB

3. Inductance shown for each winding, measured at 100 MHz using an Agilent/HP 4286A impedance analyzer and a Coilcraft SMD-A fixture

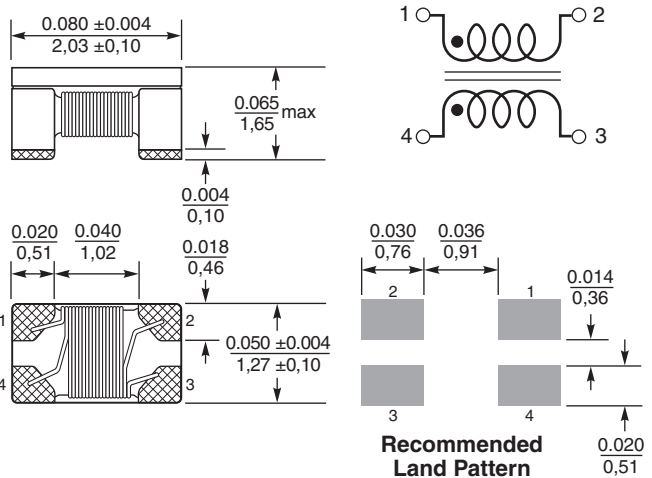
4. Current that causes a 40°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

5. DCR is specified per winding.

6. Isolation (hipot) measured for one minute.

7. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



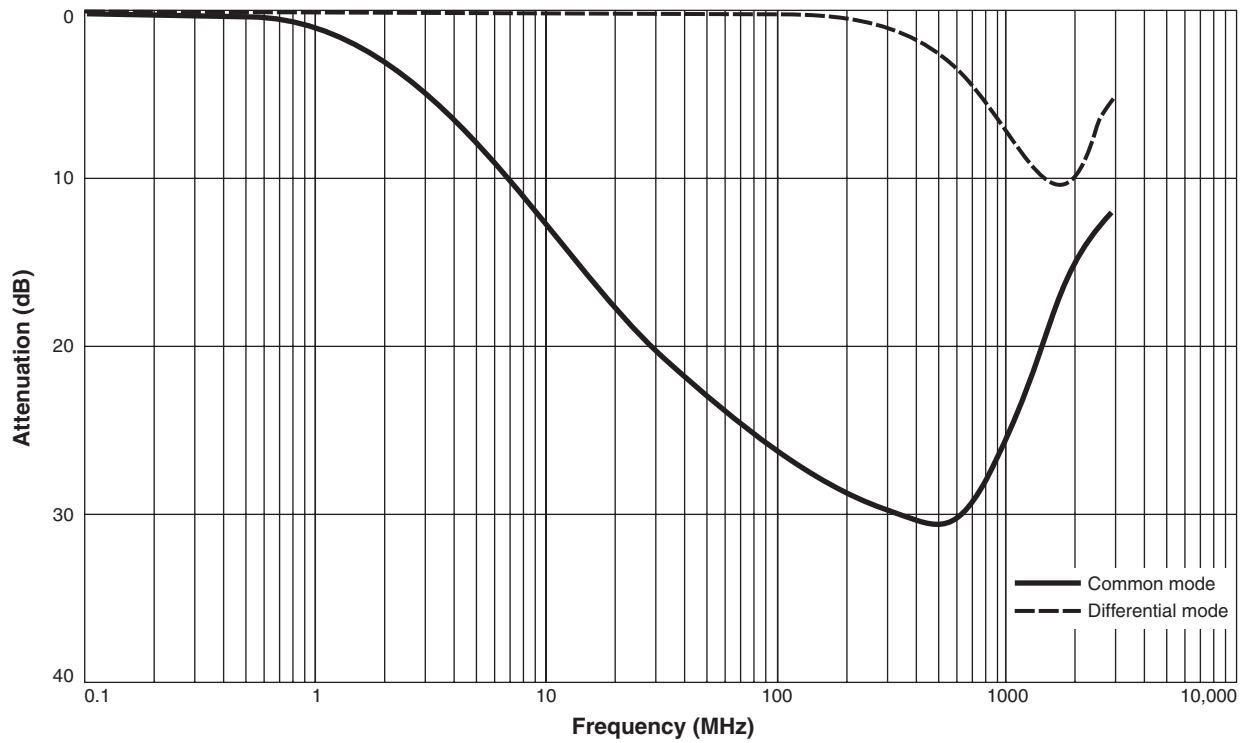
Dimensions are in $\frac{\text{inches}}{\text{mm}}$

Recommended Land Pattern

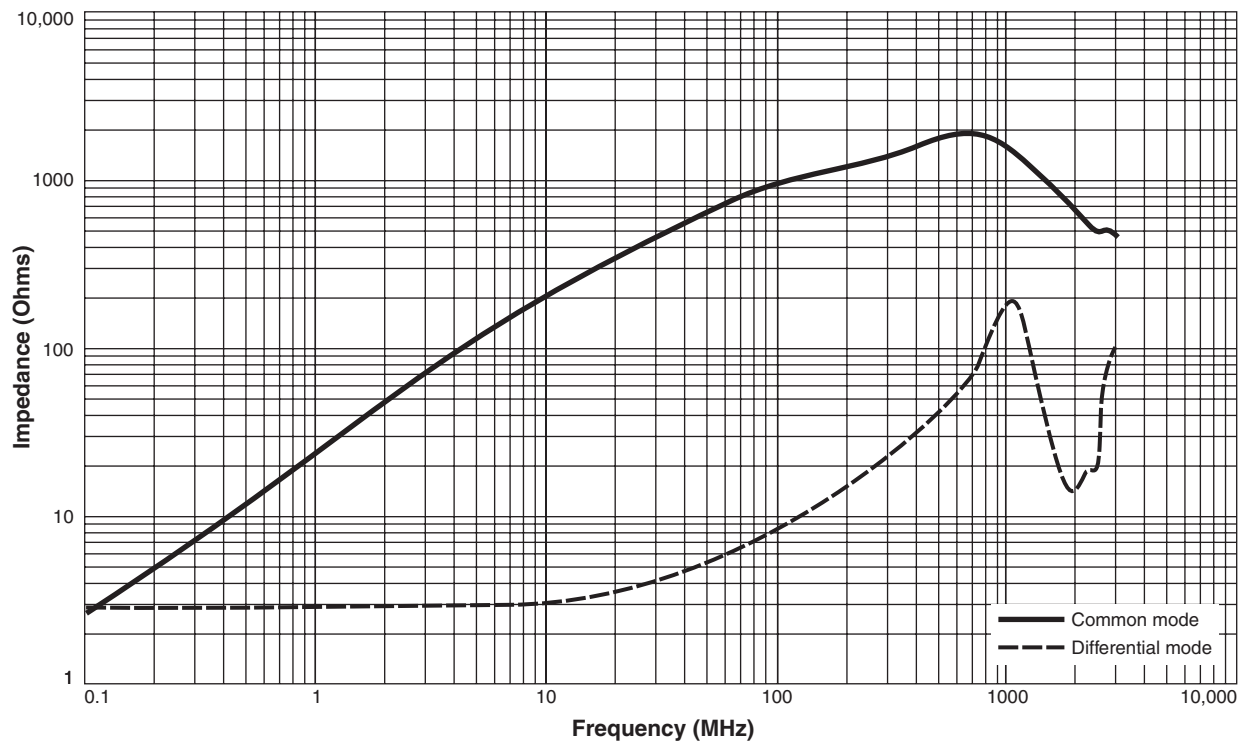


Common Mode Choke – RA6870-AL

Attenuation (Ref: 50 Ohms)



Impedance vs Frequency



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