

# Common Mode Chokes – MSD1260



- Only 6.0 mm high and 12.3 mm square
- Ideal for use in both power line and signal line applications
- Common- and differential-mode filtering in a single device
- Up to 180 MHz differential mode cutoff frequency
- Can be used as coupled inductors for SEPIC applications

**Core material** Ferrite

**Weight:** 2.8 – 3.2 g

**Terminations** RoHS compliant matte tin over nickel over phos bronze. Other terminations available at additional cost.

**Ambient temperature** –40°C to +85°C with I<sub>rms</sub> current.

**Maximum part temperature** +125°C (ambient + temp rise).

**Storage temperature** Component: –40°C to +125°C.

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

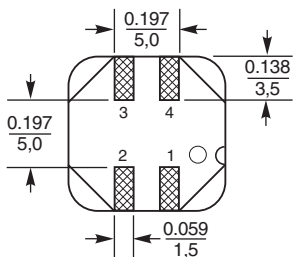
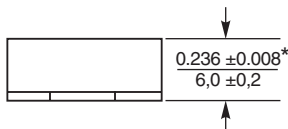
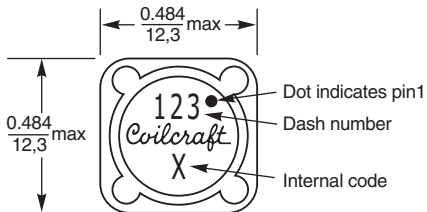
**Winding-to-winding isolation** 500 V<sub>rms</sub>, one minute

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

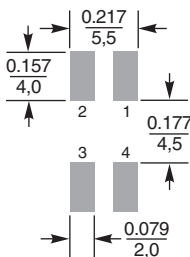
**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**Packaging** 500/13" reel; Plastic tape: 24 mm wide, 0.5 mm thick, 16 mm pocket spacing, 6.9 mm pocket depth

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

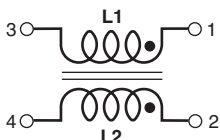


### Recommended Land Pattern



\* For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.012 inch (0,3 mm).

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





# Common Mode Chokes – MSD1260 Series

Partnumber <sup>1</sup>	Common mode impedance max (kOhms)	Cutoff <sup>2</sup> frequency (MHz)	Inductance (μH) <sup>3</sup>		DCR max <sup>4</sup> (Ohms)	Isolation (Vrms)	Irms (A)
			min	nom			
MSD1260-472ML_	7.39 @ 43 MHz	180	3.76	4.7	0.036	500	3.16
MSD1260-562ML_	8.07 @ 33 MHz	160	4.48	5.6	0.040	500	3.00
MSD1260-682ML_	7.45 @ 21 MHz	100	5.44	6.8	0.048	500	2.75
MSD1260-822ML_	12.74 @ 27 MHz	120	6.56	8.2	0.052	500	2.63
MSD1260-103ML_	10.36 @ 19 MHz	95	8.00	10	0.060	500	2.45
MSD1260-123ML_	11.72 @ 18 MHz	74	9.60	12	0.074	500	2.21
MSD1260-153ML_	15.88 @ 21 MHz	75	12.0	15	0.085	500	2.06
MSD1260-183ML_	19.22 @ 17 MHz	58	14.4	18	0.097	500	1.93
MSD1260-223ML_	23.97 @ 17 MHz	68	17.6	22	0.116	500	1.76
MSD1260-273ML_	23.83 @ 13 MHz	48	21.6	27	0.124	500	1.70
MSD1260-333ML_	28.87 @ 13 MHz	43	26.4	33	0.134	500	1.64
MSD1260-393ML_	24.31 @ 11 MHz	39	31.2	39	0.142	500	1.59
MSD1260-473ML_	27.25 @ 10 MHz	45	37.6	47	0.174	500	1.44
MSD1260-563ML_	39.80 @ 8.9 MHz	33	44.8	56	0.198	500	1.35
MSD1260-683ML_	41.12 @ 7.7 MHz	31	54.4	68	0.216	500	1.29
MSD1260-823ML_	57.65 @ 8 MHz	31	65.6	82	0.274	500	1.15
MSD1260-104ML_	58.69 @ 6.5 MHz	21	80	100	0.322	500	1.06
MSD1260-124KL_	51.20 @ 4.9 MHz	24	108	120	0.418	500	0.93
MSD1260-154KL_	41.37 @ 4 MHz	29	135	150	0.476	500	0.87
MSD1260-184KL_	52.76 @ 4.3 MHz	19	162	180	0.536	500	0.82
MSD1260-224KL_	92.17 @ 4.5 MHz	33	198	220	0.691	500	0.72
MSD1260-274KL_	46.65 @ 3.3 MHz	27	243	270	0.806	500	0.67
MSD1260-334KL_	118.0 @ 3.4 MHz	32	297	330	1.09	500	0.57
MSD1260-394KL_	67.94 @ 2.4 MHz	14	351	390	1.20	500	0.55
MSD1260-474KL_	114.7 @ 2.7 MHz	13	423	470	1.59	500	0.48
MSD1260-564KL_	76.40 @ 2.3 MHz	11	504	560	1.81	500	0.45
MSD1260-684KL_	218.9 @ 2.5 MHz	14	612	680	2.06	500	0.42
MSD1260-824KL_	212.5 @ 2.2 MHz	4.9	738	820	2.65	500	0.37
MSD1260-105KL_	124.2 @ 1.8 MHz	6.6	900	1000	3.06	500	0.34

1. When ordering, please specify **termination** and **packaging** codes:

### MSD1260-105KLD

**Termination:** L = RoHS compliant matte tin over nickel over phos bronze.

Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or S = non-RoHS tin-lead (63/37).

**Packaging:** D = 13" machine-ready reel. EIA-481 embossed plastic tape (500 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

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 D.

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

3 Inductance shown for each winding, measured at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR meter or equivalent.

4 DCR is for each winding.

5 Interwinding isolation (hipot) tested for one minute.

6 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.

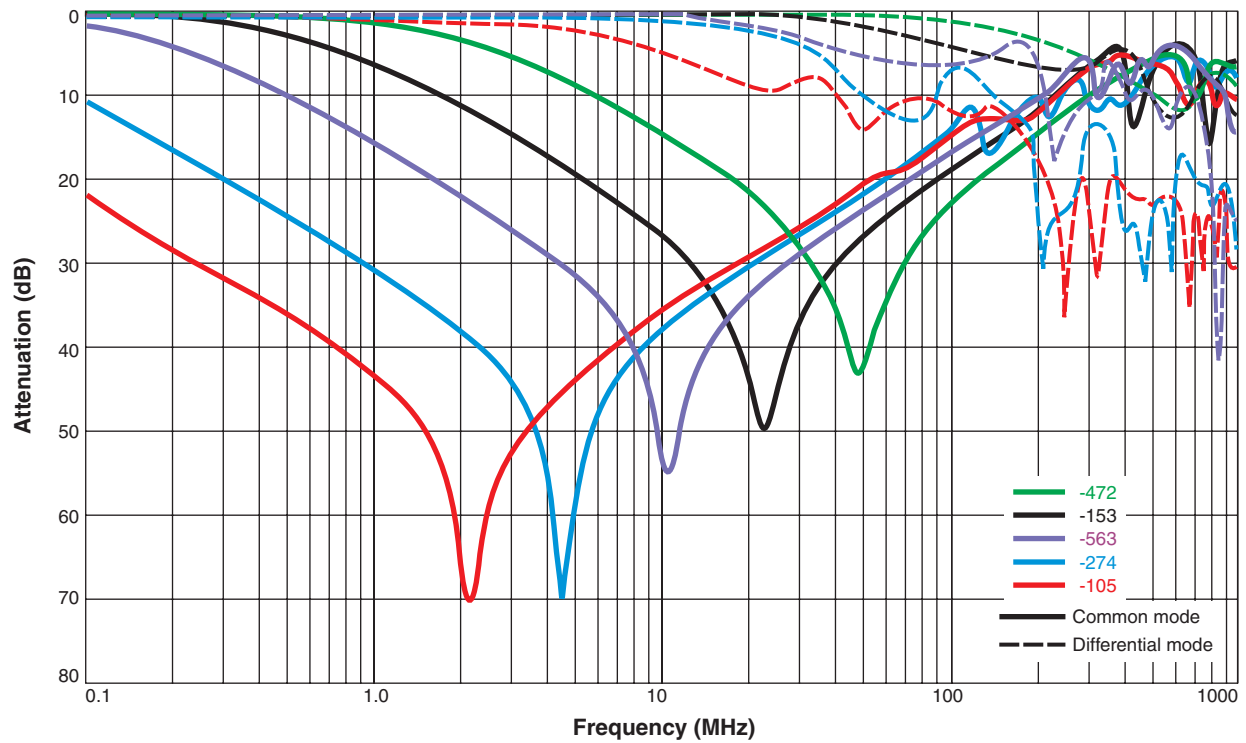
9. Electrical specifications at 25°C.

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

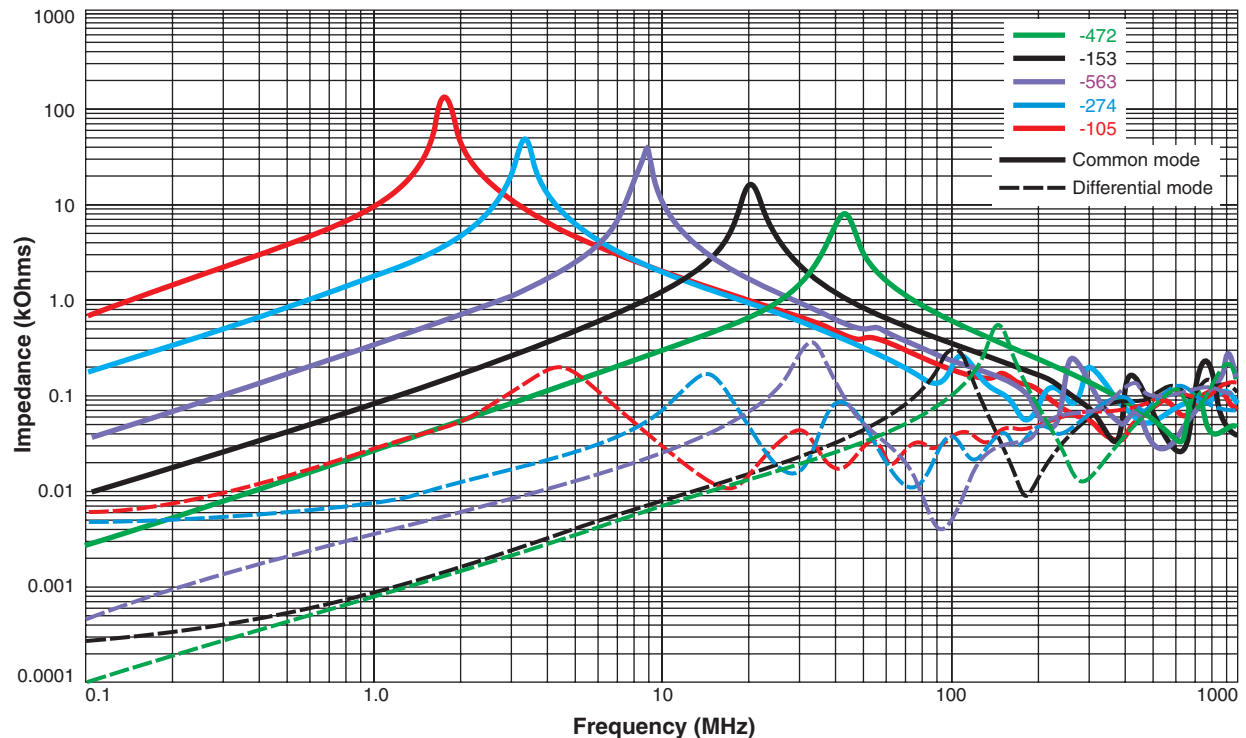


# Common Mode Chokes – MSD1260 Series

Typical Attenuation (Ref: 50 Ohms)



Typical Impedance vs Frequency



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