



Common Mode Chokes – MSD1260T



- Only 6.0 mm high and 12.3 mm square
- AEC-Q200 Grade 1 (–40°C to +125°C)
- 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

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

Weight: 2.8 – 3.2 g

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

Maximum part temperature +165°C (ambient + temp rise)

Storage temperature Component: –40°C to +165°C.

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

Winding-to-winding isolation 500 Vrms, one minute

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

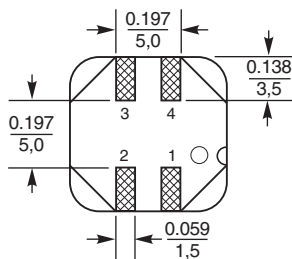
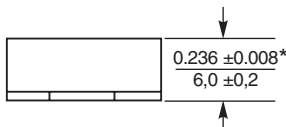
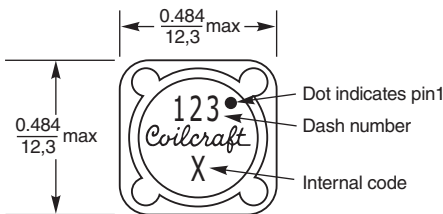
Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Failures in Time (FIT) / Mean Time Between Failures (MTBF)

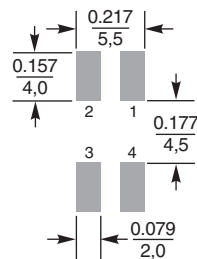
38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

Packaging 500/13" reel; Plastic tape: 24 mm wide, 0.35 mm thick, 16 mm pocket spacing, 6.6 mm pocket depth

PCB washing Tested with pure water or alcohol only. For other solvents, see [Doc787_PCB_Washing.pdf](#).

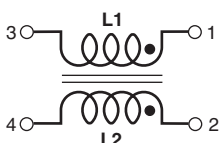


Recommended Land Pattern



* 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 – MSD1260T Series

Partnumber ¹	Common mode impedance max (kOhms)	Cutoff ² frequency (MHz)	Inductance (μ H) ³		DCR max ⁴ (Ohms)	Isolation ⁵ (Vrms)	Irms ⁶ (A)
			min	nom			
MSD1260T-332ML_	5.29 @ 53 MHz	170	2.64	3.3	0.020	500	3.60
MSD1260T-472ML_	6.27 @ 43 MHz	140	3.76	4.7	0.036	500	3.16
MSD1260T-562ML_	8.38 @ 36 MHz	91	4.48	5.6	0.040	500	3.00
MSD1260T-682ML_	9.78 @ 33 MHz	120	5.44	6.8	0.048	500	2.75
MSD1260T-822ML_	9.72 @ 30 MHz	110	6.56	8.2	0.052	500	2.63
MSD1260T-103ML_	12.31 @ 26 MHz	110	8.00	10	0.060	500	2.45
MSD1260T-123ML_	14.67 @ 23 MHz	81	9.60	12	0.074	500	2.21
MSD1260T-153ML_	16.17 @ 21 MHz	77	12.0	15	0.085	500	2.06
MSD1260T-183ML_	16.96 @ 18 MHz	64	14.4	18	0.097	500	1.93
MSD1260T-223ML_	20.73 @ 17 MHz	79	17.6	22	0.116	500	1.76
MSD1260T-273ML_	26.07 @ 15 MHz	58	21.6	27	0.124	500	1.70
MSD1260T-333ML_	26.15 @ 12 MHz	58	26.4	33	0.134	500	1.64
MSD1260T-393ML_	30.30 @ 12 MHz	36	31.2	39	0.142	500	1.59
MSD1260T-473ML_	29.81 @ 11 MHz	53	37.6	47	0.174	500	1.44
MSD1260T-563ML_	51.88 @ 9.6 MHz	33	44.8	56	0.198	500	1.35
MSD1260T-683ML_	55.74 @ 8.6 MHz	25	54.4	68	0.216	500	1.29
MSD1260T-823ML_	70.75 @ 8.2 MHz	26	65.6	82	0.274	500	1.15
MSD1260T-104ML_	80.40 @ 7.3 MHz	17	80.0	100	0.322	500	1.06
MSD1260T-124KL_	87.96 @ 6.2 MHz	27	108	120	0.418	500	0.93
MSD1260T-154KL_	97.64 @ 5.4 MHz	45	135	150	0.476	500	0.87
MSD1260T-184KL_	124.3 @ 5.2 MHz	23	162	180	0.536	500	0.82
MSD1260T-224KL_	143.4 @ 4.3 MHz	25	198	220	0.691	500	0.72
MSD1260T-274KL_	134.8 @ 4.3 MHz	11	243	270	0.806	500	0.67
MSD1260T-334KL_	132.1 @ 3.6 MHz	35	297	330	1.09	500	0.57
MSD1260T-394KL_	131.0 @ 3.4 MHz	14	351	390	1.20	500	0.55
MSD1260T-474KL_	193.5 @ 3.3 MHz	21	423	470	1.59	500	0.48
MSD1260T-564KL_	175.2 @ 2.7 MHz	15	504	560	1.81	500	0.45
MSD1260T-684KL_	158.6 @ 2.7 MHz	11	612	680	2.06	500	0.42
MSD1260T-824KL_	225.9 @ 2.2 MHz	9.2	738	820	2.65	500	0.37
MSD1260T-105KL_	197.0 @ 2.3 MHz	15	900	1000	3.06	500	0.34

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

MSD1260T-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).

B = Less than full reel. In tape, but not machine ready.

To have a leader and trailer added (\$25 charge), use code letter D instead.

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.

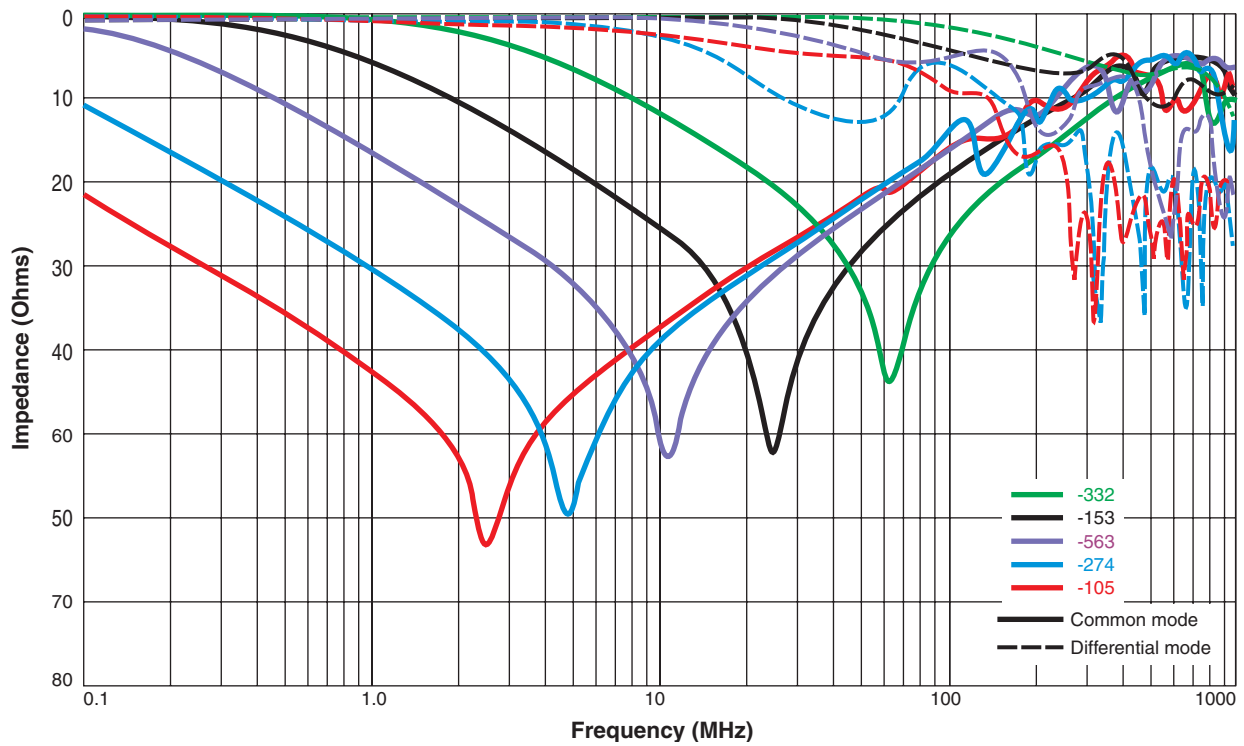
7. Electrical specifications at 25°C.

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

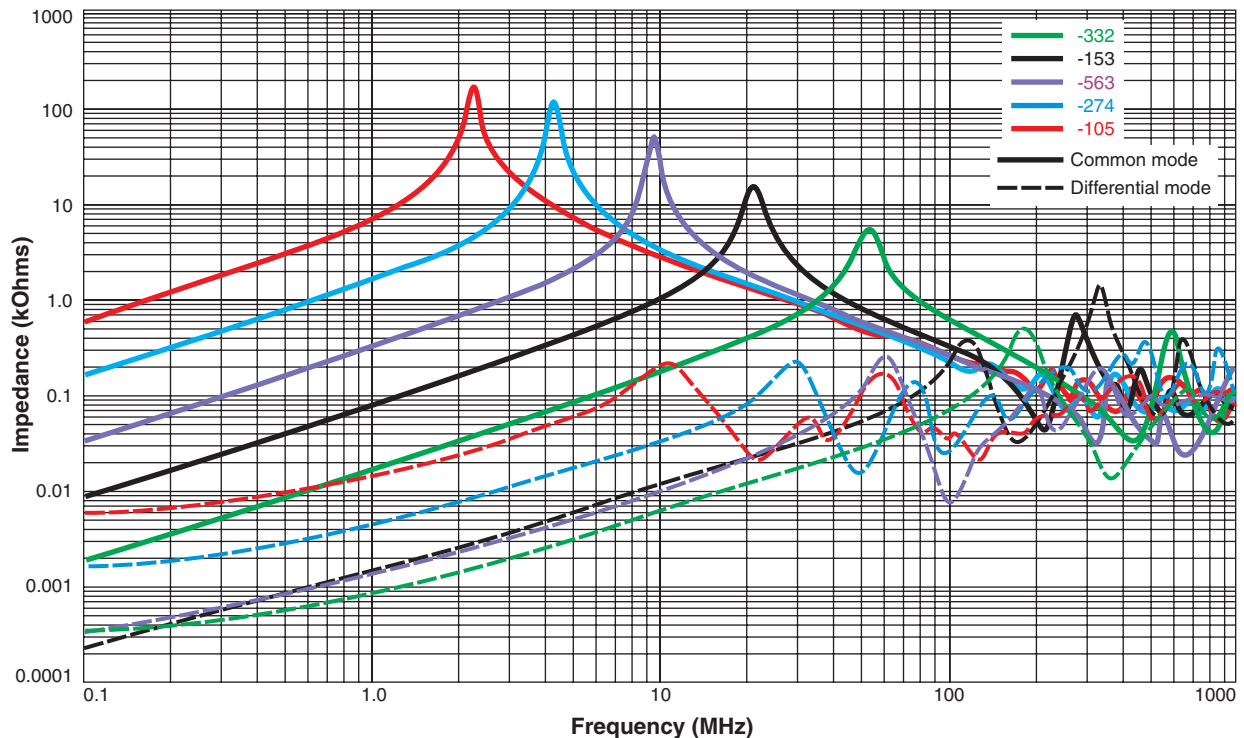


Common Mode Chokes – MSD1260T Series

Typical Attenuation (Ref: 50 Ohms)



Typical Impedance vs Frequency



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