

NEW!

Shielded Power Inductors – MSS5050T



- 5.1 × 5.0 mm footprint
- Low DCR and excellent current handling
- AEC-Q200 qualified

Core material Ferrite

Core and winding loss See www.coilcraft.com/coreloss

Environmental RoHS compliant, halogen free

Terminations RoHS compliant matte tin over nickel over phos bronze.

Weight 0.28 – 0.36 g

Ambient temperature –40°C to +125°C with (40°C rise) Irms current.

Maximum part temperature +165°C (ambient + temp rise). [Derating](#).

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

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

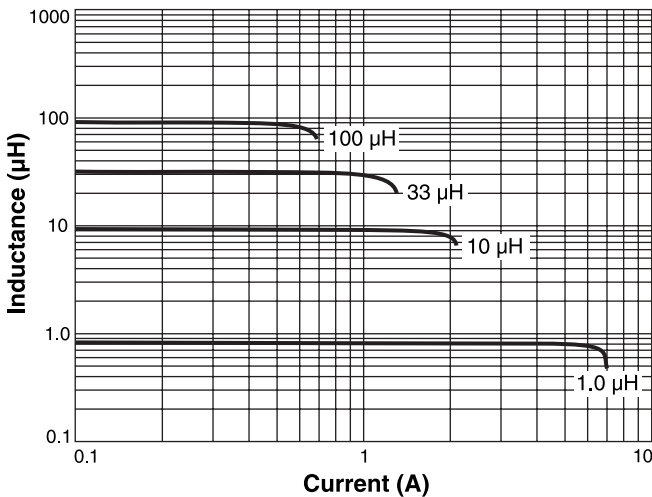
Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

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

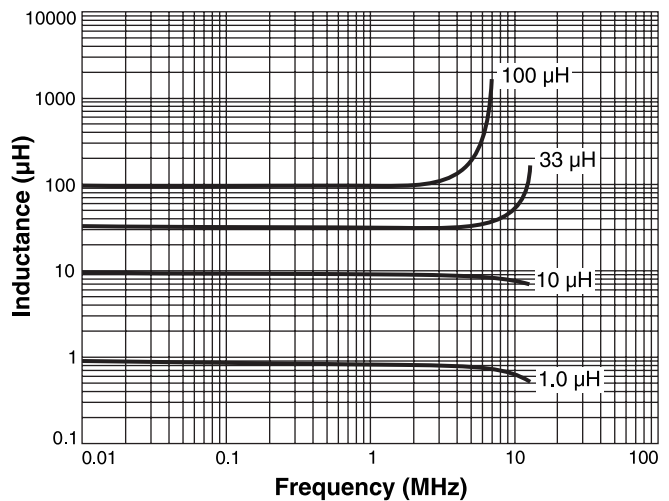
Packaging 400/7" reel, 1500/13" reel; Plastic tape: 16 mm wide, 0.40 mm thick, 8 mm pocket spacing, 5.1 mm pocket depth

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

Typical L vs Current



Typical L vs Frequency





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Part number ¹	Inductance ² (μ H)	DCR (Ohms)		SRF typ ³ (MHz)	Isat (A) ⁴			Irms (A) ⁵	
		typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
MSS5050T-102ME_	1.0 \pm 20%	0.016	0.019	185	6.1	6.4	6.6	3.03	4.20
MSS5050T-222ME_	2.2 \pm 20%	0.022	0.026	85	3.9	4.1	4.3	2.38	3.28
MSS5050T-332ME_	3.3 \pm 20%	0.029	0.035	60	3.3	3.4	3.5	2.06	2.84
MSS5050T-472ME_	4.7 \pm 20%	0.031	0.039	45	2.7	2.9	3.0	1.99	2.74
MSS5050T-682ME_	6.8 \pm 20%	0.047	0.058	31	2.2	2.4	2.5	1.60	2.20
MSS5050T-782ME_	7.8 \pm 20%	0.049	0.059	30	2.1	2.3	2.4	1.56	2.15
MSS5050T-882ME_	8.8 \pm 20%	0.051	0.061	25	2.0	2.1	2.2	1.53	2.11
MSS5050T-103ME_	10 \pm 20%	0.061	0.075	38	1.9	2.0	2.1	1.39	1.92
MSS5050T-153ME_	15 \pm 20%	0.074	0.090	20	1.5	1.6	1.7	1.26	1.73
MSS5050T-223ME_	22 \pm 20%	0.112	0.135	18	1.2	1.3	1.4	1.01	1.39
MSS5050T-273ME_	27 \pm 20%	0.126	0.150	17	1.1	1.2	1.3	0.95	1.31
MSS5050T-333ME_	33 \pm 20%	0.140	0.168	14	1.0	1.1	1.2	0.90	1.24
MSS5050T-393ME_	39 \pm 20%	0.183	0.220	12	0.95	0.98	1.0	0.78	1.08
MSS5050T-473ME_	47 \pm 20%	0.200	0.240	10.5	0.88	0.92	0.95	0.74	1.03
MSS5050T-563ME_	56 \pm 20%	0.225	0.270	10.0	0.80	0.84	0.87	0.70	0.96
MSS5050T-683ME_	68 \pm 20%	0.339	0.406	8.5	0.73	0.78	0.80	0.56	0.78
MSS5050T-823ME_	82 \pm 20%	0.378	0.454	8.0	0.65	0.70	0.72	0.53	0.74
MSS5050T-104KE_	100 \pm 10%	0.400	0.480	7.3	0.59	0.64	0.66	0.52	0.71

1. Please specify **termination** and **packaging** codes:

MSS5050T-104KEC

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

Special order:

Q = RoHS tin-silver-copper (95.5/4/0.5) over gold over nickel over phos bronze or **P** = non-RoHS tin-lead (63/37) over gold over nickel over phos bronze.

Packaging: **C** = 7" machine-ready reel EIA-481 embossed plastic tape (400 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. Factory order only, not stocked (1500 per reel per full reel).

- Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4263B LCR meter or equivalent.
 - SRF measured using Agilent/HP 4191A or equivalent.
 - DC current at 25°C that causes the specified inductance drop from its value without current. [Click for temperature derating information.](#)
 - Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. [Click for temperature derating information.](#)
 - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

Dimensions

