



# SMT Power Inductors – MSS6132



- 6.1 × 6.1 mm footprint; 3.2 mm high shielded inductors
- Low DCR and excellent current handling

**Designer's Kit C364** contains 3 of each value

**Core material** Ferrite

**Core and winding loss** See [www.coilcraft.com/coreloss](http://www.coilcraft.com/coreloss)

**Terminations** RoHS compliant matte tin over nickel over phos bronze (current production) or gold over nickel over phos bronze (prior production). Other terminations available at additional cost.

**Weight** 0.33 – 0.38 g

**Ambient temperature** –40°C to +85°C with Irms current, +85°C to +125°C with derated 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)

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

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

**Packaging** 500/7" reel, 1500/13" reel; Plastic tape: 16 mm wide, 0.3 mm thick, 12 mm pocket spacing, 3.1 mm pocket depth

**PCB washing** Only pure water or alcohol recommended

Part number <sup>1</sup>	Inductance <sup>2</sup> ±20% (µH)	DCR max (Ohms)	SRF typ <sup>3</sup> (MHz)	Isat (A) <sup>4</sup>			Irms (A) <sup>5</sup>	
				10% drop	20% drop	30% drop	20°C rise	40°C rise
MSS6132-472ML_	4.7	0.043	65.0	2.18	2.60	2.84	2.30	3.10
MSS6132-562ML_	5.6	0.048	60.0	2.10	2.50	2.74	2.20	2.95
MSS6132-682ML_	6.8	0.052	47.0	1.80	2.12	2.30	2.10	2.80
MSS6132-822ML_	8.2	0.055	45.0	1.78	2.06	2.22	2.00	2.65
MSS6132-103ML_	10	0.065	39.0	1.36	1.64	1.84	1.90	2.50
MSS6132-123ML_	12	0.079	33.0	1.30	1.54	1.70	1.75	2.35
MSS6132-153ML_	15	0.106	27.0	1.16	1.42	1.56	1.65	2.20
MSS6132-183ML_	18	0.118	24.0	1.04	1.22	1.36	1.55	2.05
MSS6132-223ML_	22	0.158	21.0	0.97	1.12	1.22	1.45	1.90
MSS6132-273ML_	27	0.180	19.0	0.91	1.08	1.18	1.30	1.75
MSS6132-333ML_	33	0.233	18.0	0.81	0.96	1.10	1.20	1.60
MSS6132-393ML_	39	0.245	17.0	0.79	0.92	0.99	1.10	1.45
MSS6132-473ML_	47	0.278	16.0	0.72	0.86	0.93	0.95	1.30
MSS6132-563ML_	56	0.330	14.0	0.61	0.72	0.79	0.85	1.15
MSS6132-683ML_	68	0.410	12.0	0.55	0.63	0.69	0.73	1.00
MSS6132-823ML_	82	0.465	10.0	0.53	0.62	0.67	0.60	0.85
MSS6132-104ML_	100	0.615	9.0	0.45	0.54	0.59	0.50	0.69

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

**MSS6132-823MLC**

**Termination:** L = RoHS compliant matte tin over nickel over phos bronze (current production) or gold over nickel over phos bronze (prior production)

**Special order:**

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

**Packaging:** C = 7" machine-ready reel EIA-481 embossed plastic tape (500 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 C instead.

**D** = 13" machine-ready reel EIA-481 embossed plastic tape. Factory order only, not stocked (1500 per reel per full reel).

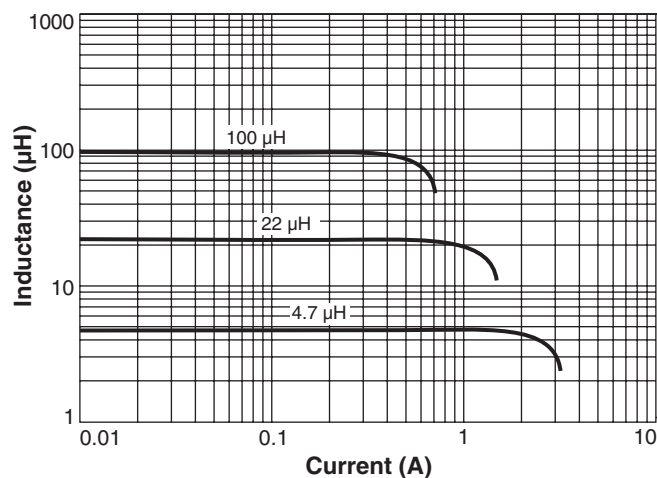
- Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4263B LCR meter or equivalent.
  - SRF measured using Agilent/HP 4191A or equivalent.
  - DC current at which the inductance drops the specified amount from its value without current.
  - Current that causes the specified temperature rise from 25°C ambient.
  - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

**SPICE models**  
ON OUR WEB SITE

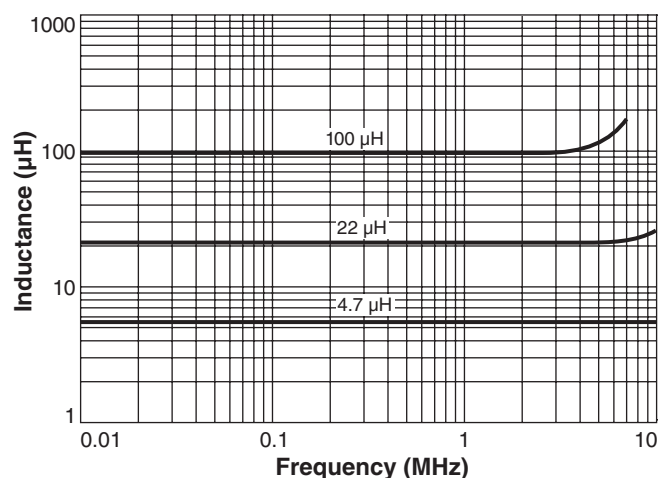


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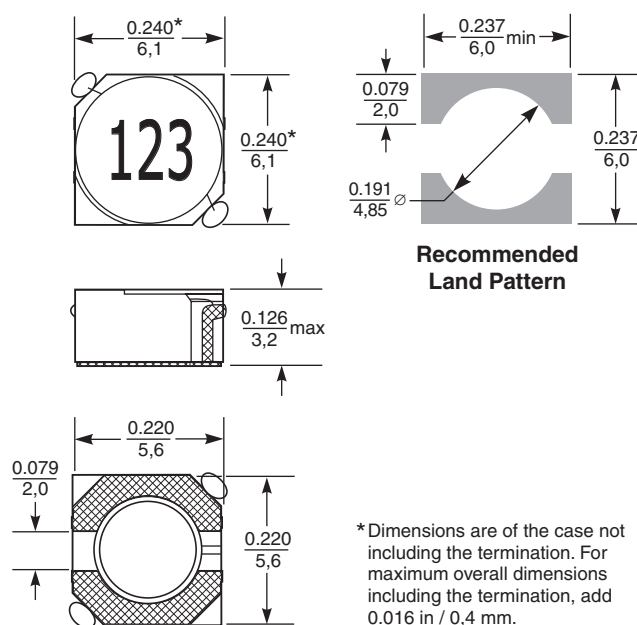
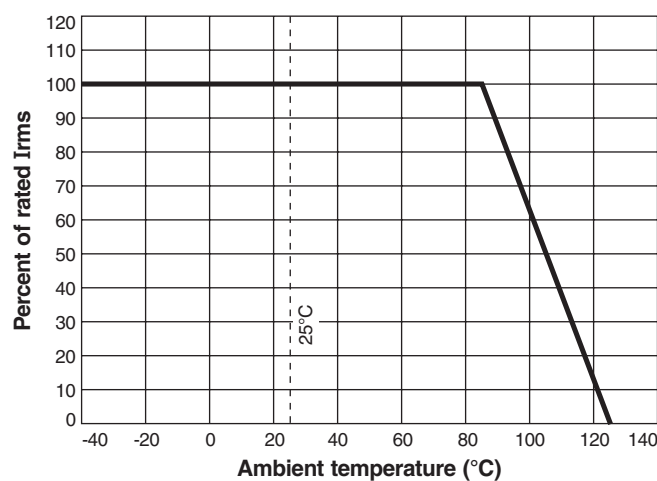
## Typical L vs Current



## Typical L vs Frequency



## Irms Derating



\*Dimensions are of the case not including the termination. For maximum overall dimensions including the termination, add 0.016 in / 0.4 mm.

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