



# SM2511 Series High Current Inductor



## 1. Features of SM2511 series

- Molded inductor structure; No audio noise.
- High saturation current realized by distributed gap metal dust core.
- Low profile: 3 mm max. height.
- Working frequency up to 3 MHz.
- Ideal for DC/DC converters, PDA, notebook, and server applications.
- T&R quantity: 1000 pieces per reel.
- RoHS and Halogen Free (HF) Compliant

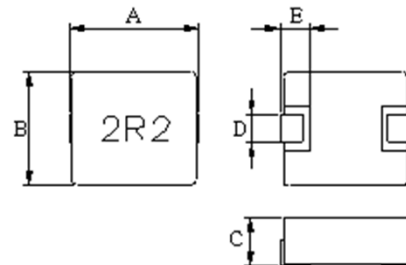


## 2. Electrical Characteristics of SM2511 series

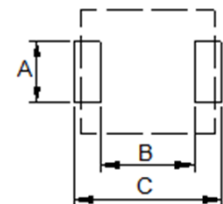
Part Number	L ± 20% @ 0A (μH)	DCR Typ. (mΩ)	DCR Max. (mΩ)	I <sub>rate</sub> (A)	I <sub>sat</sub> (A)
SM2511-R10MHF	0.10	1.5	1.7	32.5	60.0
SM2511-R22MHF	0.22	2.5	2.8	23.0	40.0
SM2511-R33MHF	0.33	3.5	3.9	20.0	30.0
SM2511-R47MHF	0.47	4.0	4.2	17.5	26.0
SM2511-R68MHF	0.68	5.0	5.5	15.5	25.0
SM2511-R82MHF	0.82	6.7	8.0	13.0	24.0
SM2511-1R0MHF	1.0	9.0	10.0	11.0	22.0
SM2511-1R5MHF	1.5	14.0	15.0	9.0	18.0
SM2511-2R2MHF	2.2	18.0	20.0	8.0	14.0
SM2511-3R3MHF	3.3	28.0	30.0	6.0	13.5
SM2511-4R7MHF	4.7	37.0	40.0	5.5	10.0
SM2511-6R8MHF	6.8	54.0	60.0	4.5	8.0
SM2511-8R2MHF	8.2	64.0	68.0	4.0	7.5
SM2511-100MHF	10.0	102.0	105.0	3.0	7.0

## 3. Mechanical Dimensions of SM2511 series (unit:mm)

Part Number	A ±0.38	B ±0.25	C Max	D ±0.3	E ±0.3
SM2511	6.86	6.47	3.0	3.18	1.27



Type	SM2511
A	3.43
B	3.71
C	7.37



Recommended PCB Layout

### Notes:

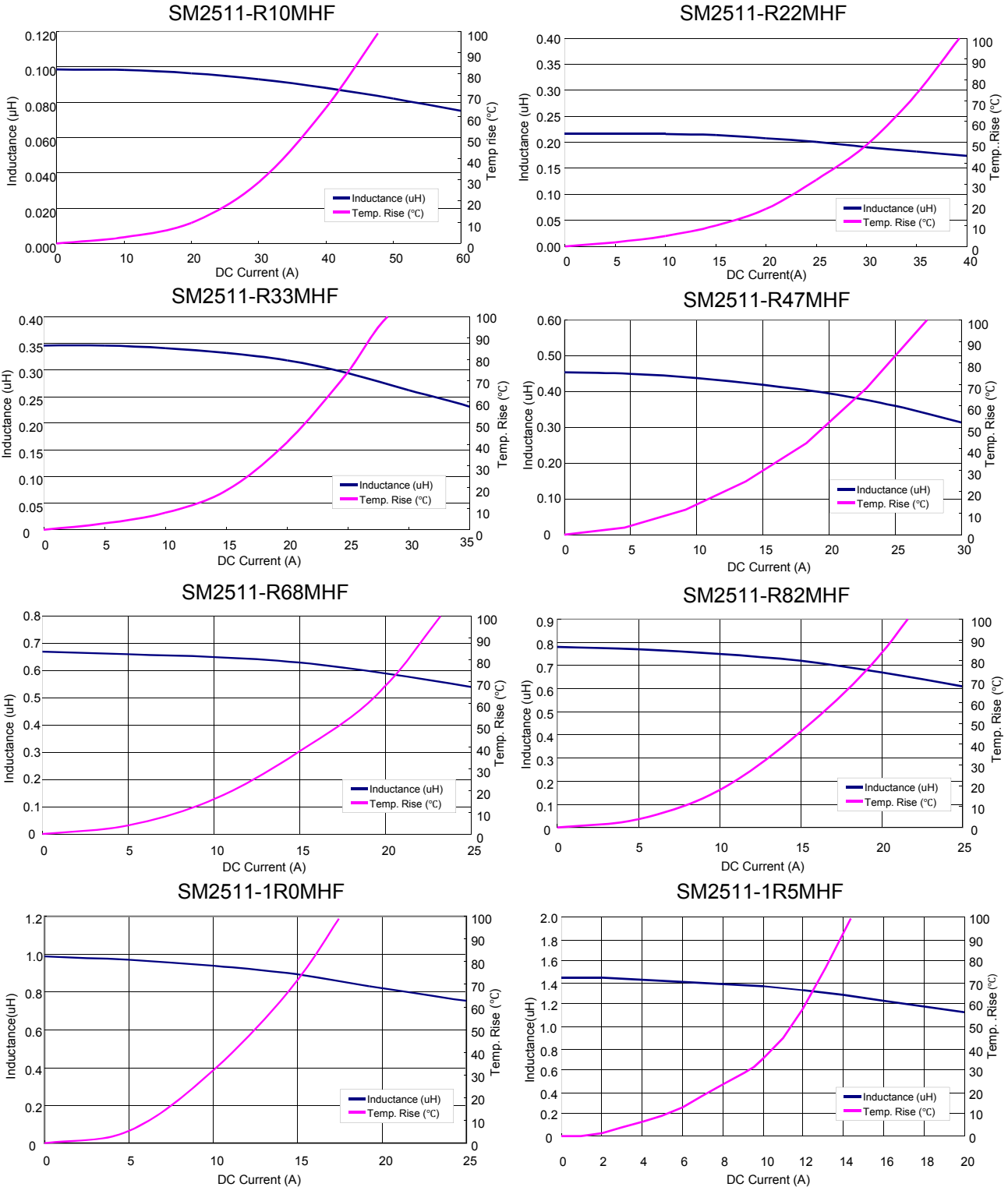
1. I<sub>rate</sub>: DC current that will cause an approximate ΔT of 40 °C.
2. I<sub>sat</sub>: DC current that will cause inductance to drop approximately by 20%.
3. Test conditions: 100 kHz, 0.25 V, 25 °C ambient temperature.
4. Operating Temperature Range: -55 °C ~ 125 °C.



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## 4. Inductance vs. Temperature Rise Characteristics of SM2511 Series



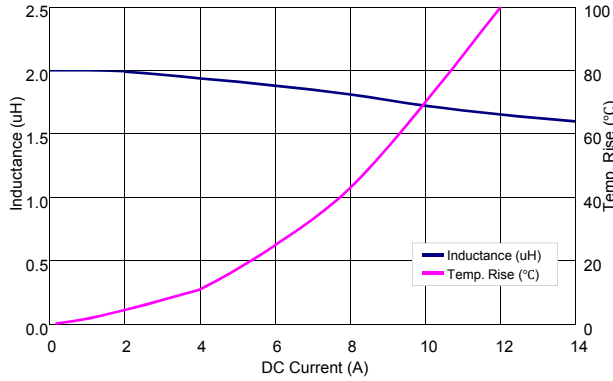


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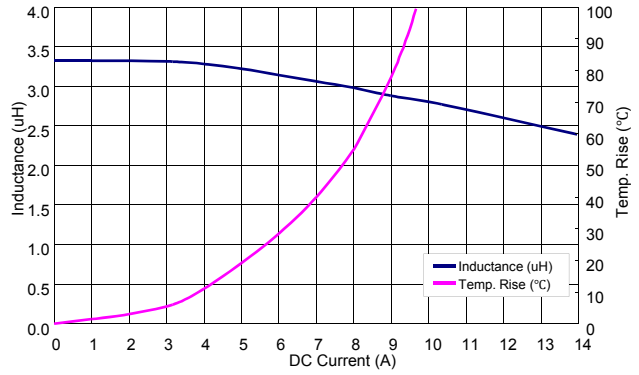


## 4. Inductance vs. Temperature Rise Characteristics of SM2511 Series (Continued)

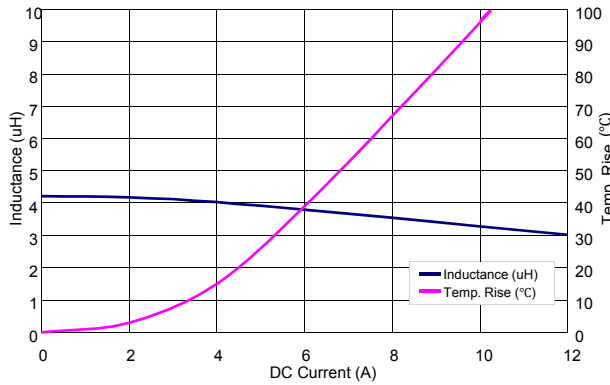
SM2511-2R2MHF



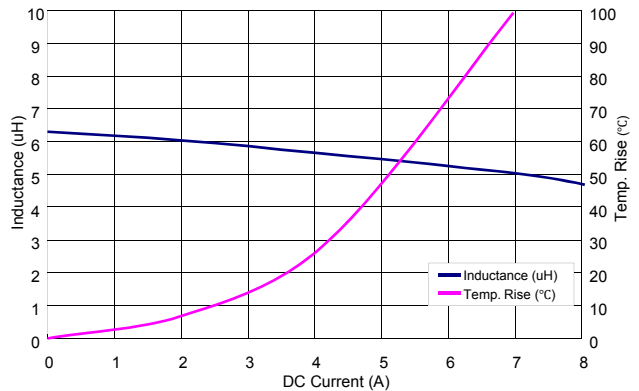
SM2511-3R3MHF



SM2511-4R7MHF



SM2511-6R8MHF



SM2511-100MHF

