



SM2511 Series High Current Inductor



Features:

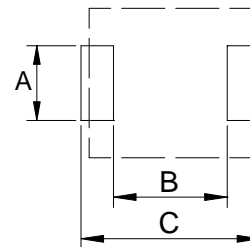
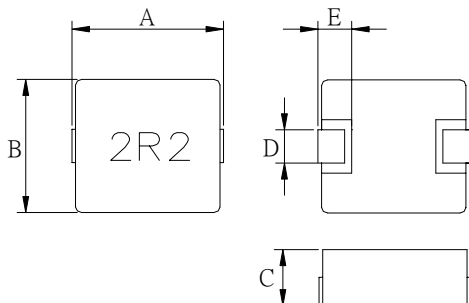
- Molded inductor structure; No audio noise.
- High saturation current realized by distributed gap metal dust core.
- Low profile: 3 mm max. height.
- Working frequency up to 1 MHz.
- Ideal for DC/DC converters, PDA, notebook, and server applications.
- T&R quantity: 1000 pieces per reel.



Electrical Specifications					
Part Number	$L \pm 20\% @ 0A$ (μH)	DCR Typ. ($m\Omega$)	DCR Max. ($m\Omega$)	I_{rate} (Amps)	$I_{sat.}$ (Amps)
SM2511-R10M	0.10	1.5	1.7	32.5	60.0
SM2511-R22M	0.22	2.5	2.8	23.0	40.0
SM2511-R33M	0.33	3.5	3.9	20.0	30.0
SM2511-R47M	0.47	4.0	4.2	17.5	26.0
SM2511-R68M	0.68	5.0	5.5	15.5	25.0
SM2511-R82M	0.82	6.7	8	13.0	24.0
SM2511-1R0M	1.0	9	10	11.0	22.0
SM2511-1R5M	1.5	14	15	9.0	18.0
SM2511-2R2M	2.2	18	20	8.0	14.0
SM2511-3R3M	3.3	28	30	6.0	13.5
SM2511-4R7M	4.7	37	40	5.5	10.0
SM2511-6R8M	6.8	54	60	4.5	8.0
SM2511-8R2M	8.2	64	68	4.0	7.5
SM2511-100M	10	102	105	3.0	7.0

Notes:

1. I_{rate} : DC current that will cause an approximate ΔT of 40 °C.
2. I_{sat} : 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.



Recommended PCB Layout

Mechanical Dimensions (Unit: mm)					
Part Number	A	B	C	D	E
SM2511	± 0.38	± 0.25	Max.	± 0.3	± 0.3
	6.86	6.47	3.0	3.18	1.27

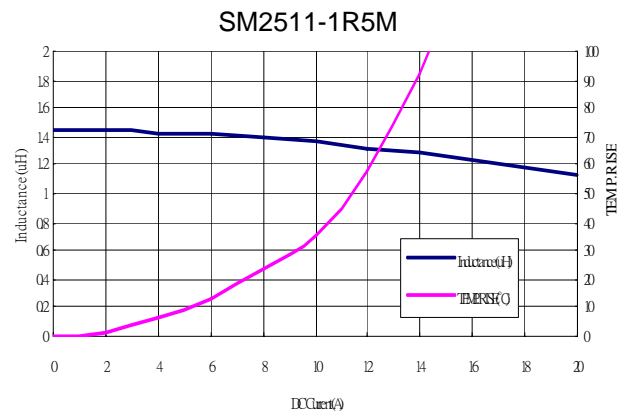
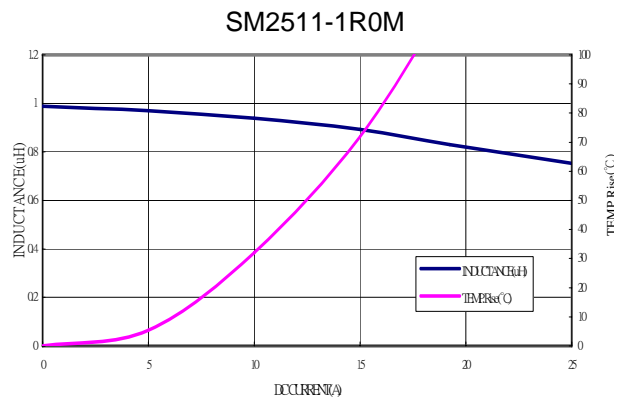
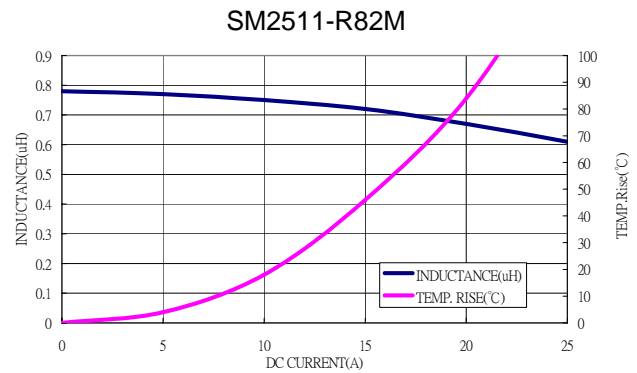
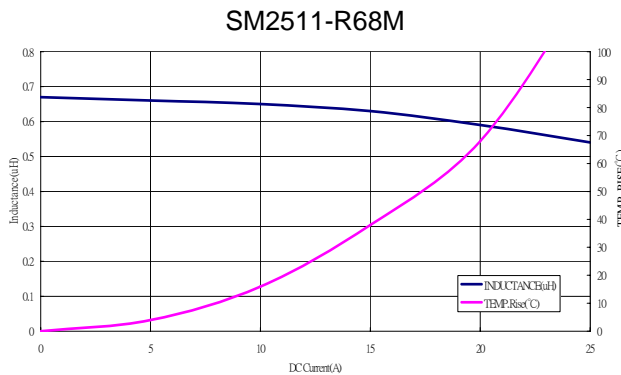
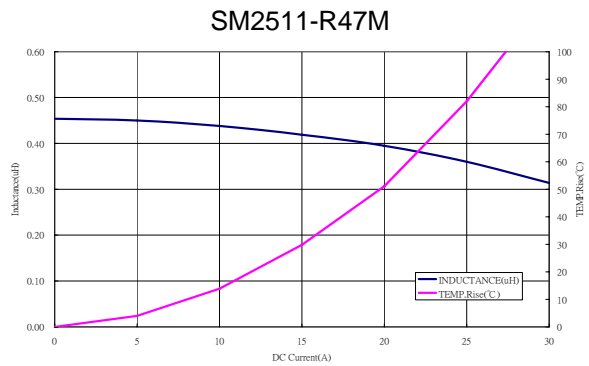
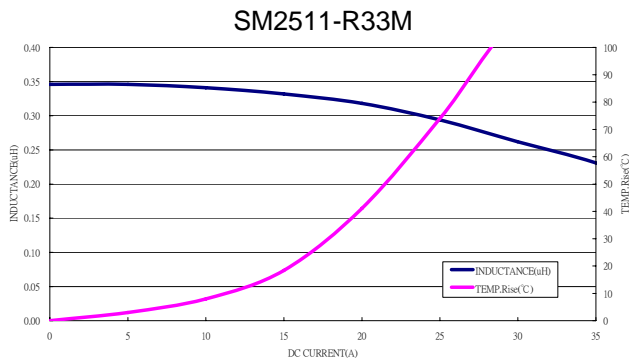
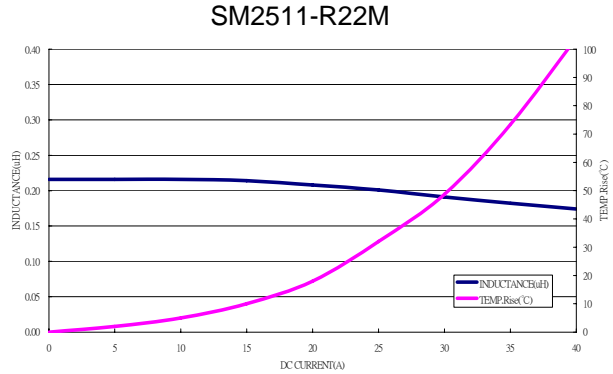
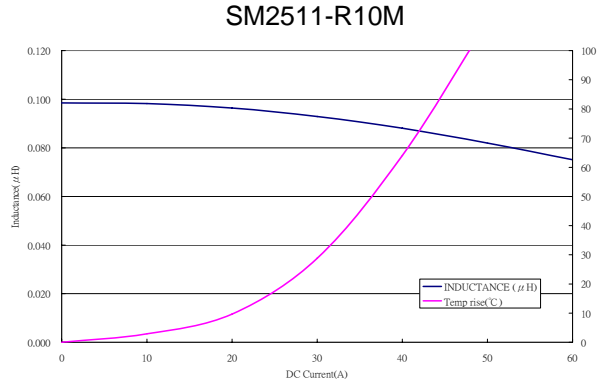
Type	SM2511
A	3.43
B	3.71
C	7.37



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Inductance vs. DC Current vs. Temperature Rise Curve

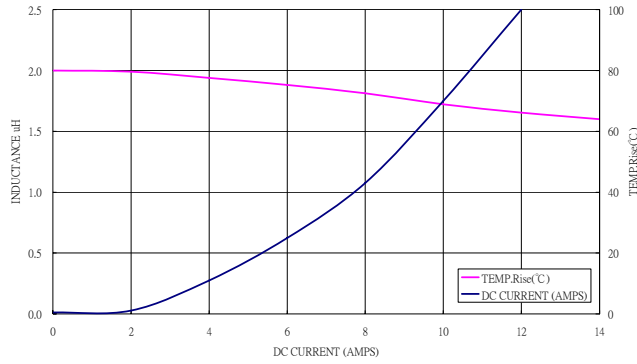




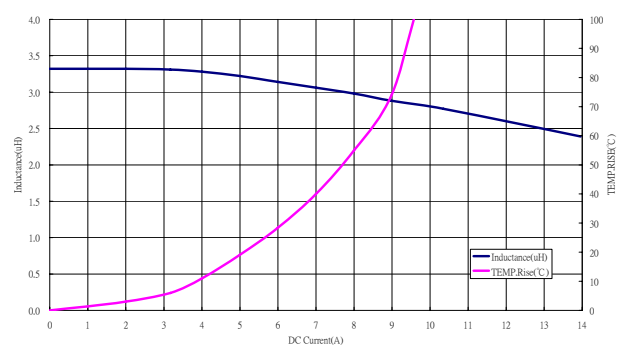
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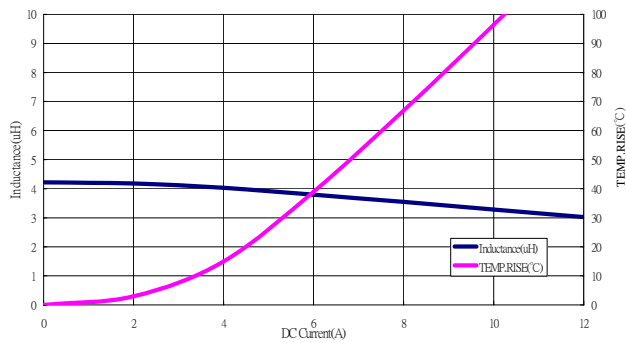
SM2511-2R2M



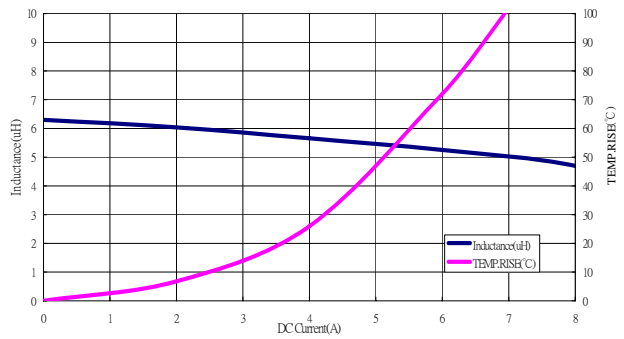
SM2511-3R3M



SM2511-4R7M



SM2511-6R8M



SM2511-100M

