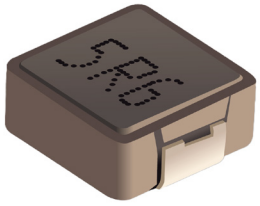
AEM Innovation to Power Your Vision

AEM HI-REL



HRI2812SPI High-Reliability Shielded Power Inductor

Features

- Sn/Pb Tin-Lead solder termination finish.
- Shielded construction for low radiation
- Metal alloy powder core
- High saturation current
- Low buzz noise

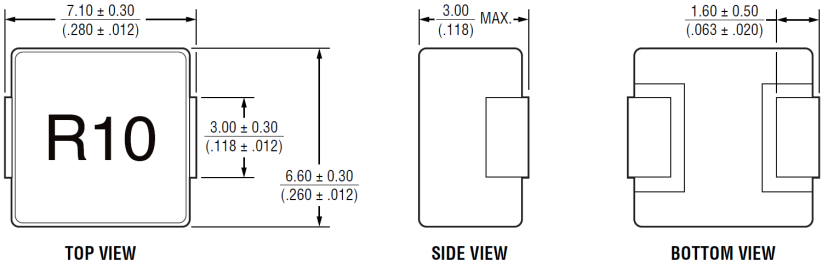
Applications

- Aerospace
- Avionics
- Military

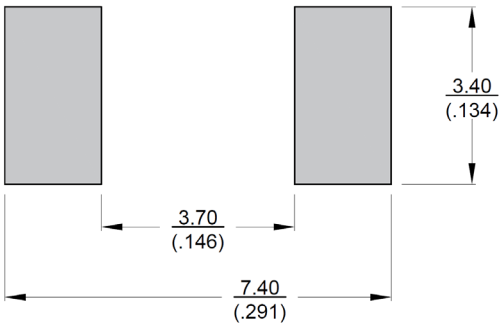
Electrical Characteristics @ +25 °C

AEM Part No.	Inductance @500kHz/0.25V		Q (MHz) Typ.	Q Test Freq. (MHz)	SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	Irms (A) Typ.	Isat (A) Typ.
	L(uH)	Tol. %							
HRI2812SPI-R10Mxx	0.10	20	14	25.2	200	1.5	1.7	34.0	70.0
HRI2812SPI-R22Mxx	0.22	20	12	25.2	145	2.5	2.8	25.5	50.0
HRI2812SPI-R33Mxx	0.33	20	12	25.2	140	3.5	3.9	21.5	35.0
HRI2812SPI-R47Mxx	0.47	20	10	25.2	80	4.0	4.2	21.0	30.0
HRI2812SPI-R56Mxx	0.56	20	12	25.2	78	5.0	5.5	18.0	28.0
HRI2812SPI-R68Mxx	0.68	20	8	25.2	75	5.1	5.5	17.5	28.0
HRI2812SPI-R82Mxx	0.82	20	8	25.2	68	6.7	7.8	14.0	26.0
HRI2812SPI-1R0Mxx	1.00	20	30	7.96	58	9.0	10.0	12.0	25.0
HRI2812SPI-1R5Mxx	1.50	20	30	7.96	45	14.0	15.0	10.0	18.0
HRI2812SPI-2R2Mxx	2.20	20	30	7.96	30	18.0	20.0	10.0	14.0
HRI2812SPI-3R3Mxx	3.30	20	24	7.96	25	28.0	30.0	8.0	13.5
HRI2812SPI-4R7Mxx	4.70	20	21	7.96	22	37.0	40.0	6.0	11.0
HRI2812SPI-5R6Mxx	5.60	20	21	7.96	20	52.0	60.0	5.8	10.5
HRI2812SPI-6R8Mxx	6.80	20	26	2.52	17	54.0	60.0	5.5	9.0
HRI2812SPI-8R2Mxx	8.20	20	26	2.52	12	64.0	68.0	5.0	7.5
HRI2812SPI-100Mxx	10.0	20	26	2.52	10	102.0	105.0	4.0	7.0

Product Dimensions



Recommended Pad Layout



Dimentions: mm / Inches

ANAB ACCREDITED Certified to AS9100D ISO 9001:2015 TÜVRheinland

MIL-STD-790

HRI2812SPI High-Reliability Shielded Power Inductor

Standard Screening Options

- Option 1: 100% visual inspection per MIL-PRF-83446, MIL-STD-981.
- Option 2: Group A and B Screening per MIL-PRF-83446, MIL-STD-981.
- Option 3: Group A, B, and C Screening per MIL-PRF-83446, MIL-STD-981.
- Option 4: Group A, B, and Qualification Screening per MIL-PRF-83446, MIL-STD-981.

Note: See AEM detail specification for more details.

Ordering Information

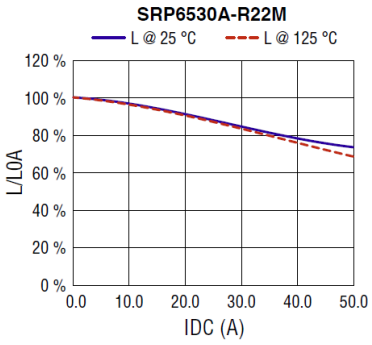
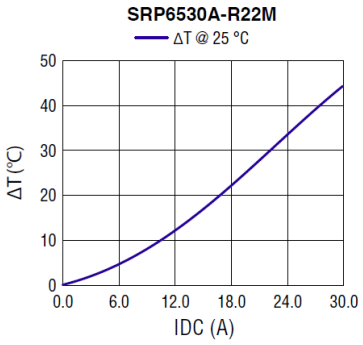
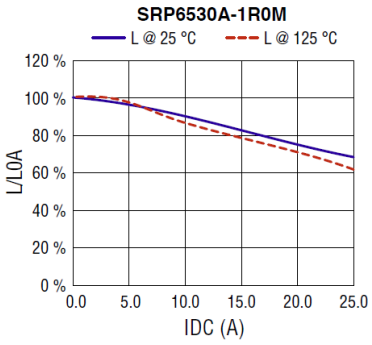
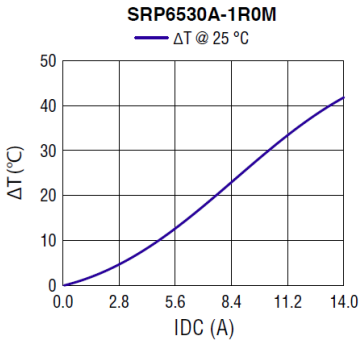
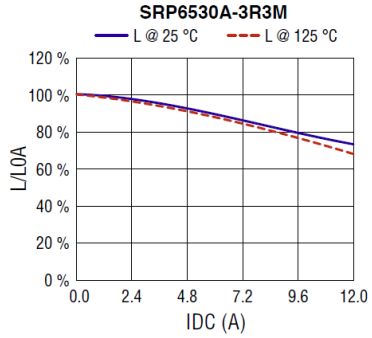
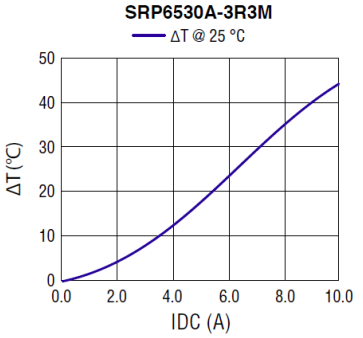
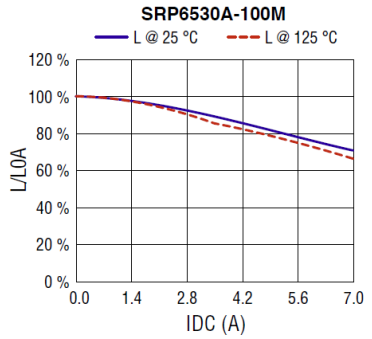
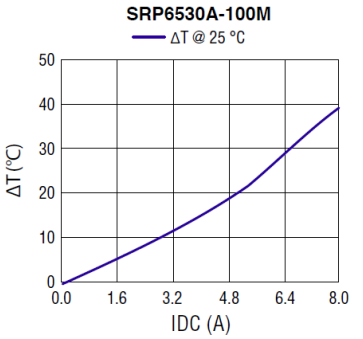
HRI 2812SPI R10M x x

- HRI: *High Reliability Shielded Power Inductor*
- 2812SPI: *Package Model*
- Inductance Code: *R is a decimal point (.) and the digit or number after, is the value of the inductance.*
- Screening Options: *1, 2, 3, 4 (see screening options on the left)*
- *Terminal Code: 1: Sn/Pb plated; 2: Sn plated*

General Specifications and Materials

1- Operating temperature:..... -55°C to +155°C (Temperature rise included).
2- Storage temperature:..... (Component) -55°C to +155°C.
3- Temperature rise:..... +40°C at rated Irms*.
4- Inductance drop:.....30% at Isat.
5-Rated voltage:.....50V.
6- Moisture sensitivity level:..... MSL=1.
7- ESD Classification (HBM): .....N/A.
8- Core: .....Metal alloy powder.
9- Wire: .....Enameled copper.
10- Terminal finish: .....Tin/Lead (Sn/Pb).
11- Screening Options: 1,2,3,4.

*** Note: Part temperature should be verified in the end application. Circuit design, component, PCB traces size and thickness, airflow and other cooling provisions affect the part temperature.**

HRI2812SPI High-Reliability Shielded Power Inductor

Inductance vs. IDC