



Eaton low profile inductor for commercial and automotive applications



Offering new trends in power magnetics with high power density in a small robust construction design suitable for commercial and automotive applications.

Product description:

Eaton's electronics division introduces MPI (commercial grade) & MPIA (automotive grade), our latest advancement in power magnetics designed to meet automotive electronics power and thermal handling requirements.

The MPI(A) uses an advanced molded construction design for high current handling capabilities, better thermal dissipation characteristics and superior mechanical strength. The MPI(A) product family is a compact low profile surface mount package and is magnetically shielded for low EMI, has low core loss and good temperature stability over the operating temperature range.

The MPIA is AEC-Q200 Automotive Grade compliant products allowing automotive engineers to use them in many applications throughout the vehicle.

Features and benefits:

- AEC-Q200 qualified
- High current carrying capacity in a compact standard footprints
- Magnetically shielded, Low EMI
- Rugged construction
- Self resonant frequency (SRF) greater than 25 MHz
- Moisture Sensitivity Level (MSL): 1



Powering Business Worldwide

MPI Product specifications

Part Number ⁵	OCL ¹ (μH) ±20%	I _{rms} ² (A)	I _{sat} ³ (A)	DCR (mΩ) typical @ +20 °C	DCR (mΩ) maximum @ +20 °C	SRF (MHz) typical	K-factor ⁴
MPI2510V2-xxx-R	0.33 - 4.70	4.8 - 1.22	1.8 - 6.6	15 - 220	20 - 262	25 - 120	1616 - 6336
MPI2512V2-xxx-R	0.33 - 4.70	1.4 - 5.1	1.9 - 7.5	14 - 196	19 - 235	25 - 130	1580 - 6560
MPI4012V2-xxx-R	0.33 - 4.7	1.8 - 7.5	2.8 - 11	11 - 175	13.5 - 210	29 - 128	890 - 2480
MPI4015V2-xxx-R	0.22 - 10	1.8 - 10.5	2.1 - 14	6.0 - 245	7.5 - 294	14 - 153	766 - 2649
MPI4020V2-xxx-R	0.10 - 22	1.2 - 16	1.65 - 22	3.5 - 350	4.5 - 402	9.5 - 343	215 - 2692

MPIA Product specifications

Part Number ⁵	OCL ¹ (μH) ±20%	I _{rms} ² (A)	I _{sat} ³ (A)	DCR (mΩ) typical @ +20 °C	DCR (mΩ) maximum @ +20 °C	SRF (MHz) typical	K-factor ⁴
MPIA2010V1-xxx-R	0.33 - 2.20	2.0 - 4.0	2.2 - 5.5	21 - 117	26 - 140	60 - 120+	1487 - 4368
MPIA2510V2-xxx-R	0.33 - 4.70	1.22 - 4.8	1.8 - 6.6	15 - 220	20 - 262	25 - 120	1616 - 6336
MPIA2512V2-xxx-R	0.33 - 4.70	1.4 - 5.1	1.9 - 7.5	14 - 196	19 - 235	25 - 130	1580 - 6560
MPIA4012V2-xxx-R	0.33 - 4.7	1.8 - 7.5	2.8 - 11	11 - 175	13.5 - 210	29 - 128	890 - 2480
MPI4015V2-xxx-R	0.22 - 10	1.8 - 10.5	2.1 - 14	6.0 - 245	7.5 - 294	14 - 153	766 - 2649
MPI4020V2-xxx-R	0.10 - 22	1.2 - 16	1.65 - 22	3.5 - 350	4.5 - 402	9.5 - 343	215 - 2692

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