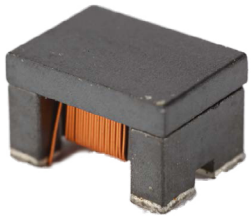
Automotive CAN-Ethernet Bus Filters

Eaton automotive bus filters provide reliable EMI filtering for vehicle connectivity



The Automotive CAN-Ethernet (ACE) Bus Inductors provide excellent filtering with and low parasitic capacitance.

Product description

Eaton's Automotive CAN-Ethernet (ACE) Bus inductors provide excellent filtering with low parasitic capacitance to minimize noise intrusion in data lines on CAN and Ethernet vehicle connectivity modules. They come in EIA 0805 (2012 metric), 1210 (3225 metric), and 1812 (4532 metric) industry sizes with inductances ranging from 11 uH to 200 uH and impedances from 90 ohms to 15,000 ohms.

Eaton ACE Bus Inductors support CAN and Ethernet protocols. The components are AEC-Q200 compliant, ensuring rugged mechanical and electrical performance in a wide range of temperatures.

Features and benefits:

- AEC-Q200 qualified
- Standard footprint sizes EIA 0805 (2012 metric), 1210 (3225 metric and 1812 (4532 metric)
- Complete inductance range: 11 uH, 22 uH, 51 uH, 100 uH, and 200 uH
- High filtering capability
- Low parasitic capacitance
- ACE2V family compliant to OPEN Alliance 2.0

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Product specifications

ACE1V2012-R

Part Number	Common-mode impedance Z (Ω) at 100 MHz	DCR maximum range (Ω) @ +25 °C	Idc (mA) maximum	Rated voltage (Vdc) typical	Insulation resistance (MΩ) minimum
ACE1V2012-900-R	90 ±25%	0.30	400	50	10
ACE1V2012-121-R	120 ±25%	0.30	370	50	10
ACE1V2012-201-R	200 ±25%	0.35	330	50	10
ACE1V2012-361-R	360 ±25%	0.40	280	50	10
ACE1V2012-681-R	680 ±25%	0.80	220	50	10
ACE1V2012-102-R	1000 ±25%	1.50	190	50	10
ACE1V2012-222-R	2200 ±25%	2.00	150	50	10

ACE1V3225-R

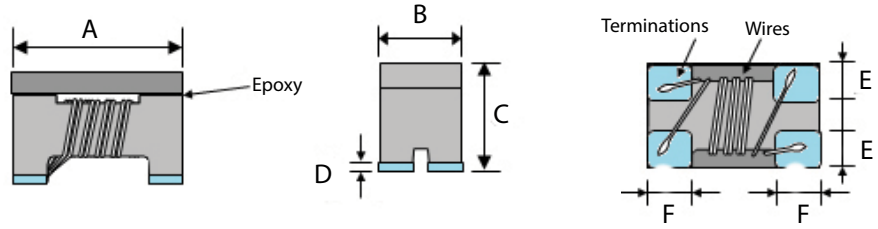
Part Number	Common-mode impedance (Ω) at 10 MHz	Common-mode inductance (µH) at 100 kHz	DCR maximum range (Ω) @ +25 °C	Idc (mA) maximum	Rated voltage (Vdc) typical
ACE1V3225-110-R	300 minimum 500 typical	11 +50%/-30%	0.40	300	80
ACE1V3225-220-R	500 minimum 1000 typical	22 +50%/-30%	0.50	250	80
ACE1V3225-510-R	1000 minimum 2600 typical	51 +50%/-30%	0.70	200	80
ACE1V3225-101-R	2200 minimum 5100 typical	100 +50%/-30%	1.50	150	80
ACE1V3225-201-R	10000 minimum 15000 typical	200 +50%/-30%	4.80	70	80

ACE2V3225-R (OPEN Alliance 2.0 compatible)

Part Number	Common-mode impedance (Ω) at 10 MHz	Common-mode inductance (µH) at 100 kHz	DCR maximum range (Ω) @ +25 °C	Idc (mA) maximum	Rated voltage (Vdc) typical
ACE2V3225-101-R	1500 minimum 3000 typical	80 -30%/+50%	3.12	70	50
ACE2V3225-201-R	6500 minimum 9500 typical	200 -10%/+30%	5.5	70	50

ACE1V4532-R

Part Number	Common-mode impedance (Ω) at 10 MHz	Common-mode inductance (µH) at 100 kHz	DCR maximum range (Ω) @ +25 °C	Idc (mA) maximum	Rated voltage (Vdc) typical
ACE1V4532-110-R	300 minimum 700 typical	11 +50%/-30%	0.60	250	50
ACE1V4532-220-R	500 minimum 1000 typical	22 +50%/-30%	1.00	200	50
ACE1V4532-510-R	1000 minimum 2000 typical	51 +50%/-30%	1.00	200	50
ACE1V4532-101-R	2000 minimum 5000 typical	100 +50%/-30%	2.00	150	50
ACE1V4532-201-R	10000 minimum 15000 typical	200 +50%/-30%	4.50	100	50



Part Number	A	B	C	D	E	F
ACE1V2012-xxn-R	2.0 ±0.2	1.2 ±0.2	1.2 ±0.2	0.2 ±0.1	0.40 typ	0.45 typ
ACE1V3225-xxn-R	3.2 ±0.2	2.5 ±0.2	2.5 max	0.2 ±0.1	0.90 typ	0.8 typ
ACE2V3225-xxx-R	3.3 ±0.2	2.5 ±0.2	2.5 max	na	1.0 typ	0.55 typ
ACE1V4532-xxn-R	4.5 ±0.2	3.2 ±0.2	2.8 ±0.2	0.2 ±0.1	1.2 typ	1.0 typ

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