Eaton current sense transformers (ECSTA)

Current sense transformers to manage current levels in high power automotive systems

Eaton's current sense transformers (ECSTA) help prevent overcurrent conditions and other current fault conditions in powered circuits. They feature a rugged bobbin construction ideal for use in harsh operating conditions.

Product description

Eaton's automotive current sense transformers (ECSTA) are suitable for high-reliability commercial and automotive applications. Eaton's ECSTA is AEC-Q200 tested and ideal for high-reliability automotive and commercial applications (e.g., industrial, computing, medical, and energy products).

Key applications

- Improving efficiency on high-frequency switched-mode power supplies (SMPS)
- AC current detection
- Load drop/shutdown detection
- System tampering detection
- Load measuring
- High-frequency current sensing

Features and benefits

- Multiple size options
- AEC-Q200 Grade 3 tested for high reliability
- High current capability up to 15 A
- Low DCR current sense winding
- High frequency range up to 1 MHz
- High operating temperature range from -40 °C to +125 °C
- 500 V isolation voltage

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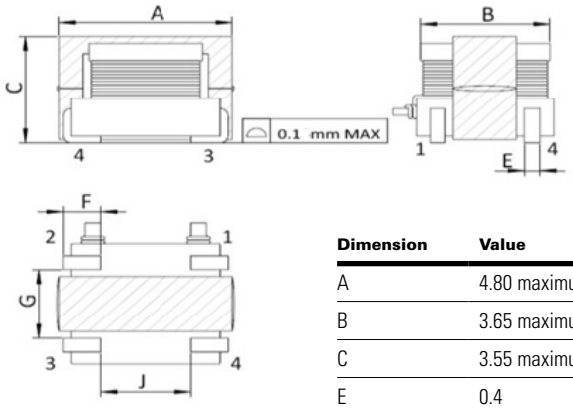
Product specifications

Family	Turns ratio range sec:pri	Secondary inductance range (µH)	DCR sec range (Ω) maximum	DCR pri (mΩ) reference	Hi-pot pri to sec @ 2 mA 3 seconds 50 Hz	Sensed current (A) maximum
ECSTA1V0504	20:1 to 150:1	33 to 1800	0.35 to 21	3	500 Vac	7
ECSTA1V0703	20:1 to 150:1	53 to 2990	0.42 to 22.3	1.5	500 Vac	9
ECSTA1V0805	20:1 to 125:1	80 to 3000	0.4 to 11.5	0.7	500 Vac	10
ECSTA1V1308	20:1 to 200:1	220 to 22000	0.21 to 8	3.9	500 Vac	15

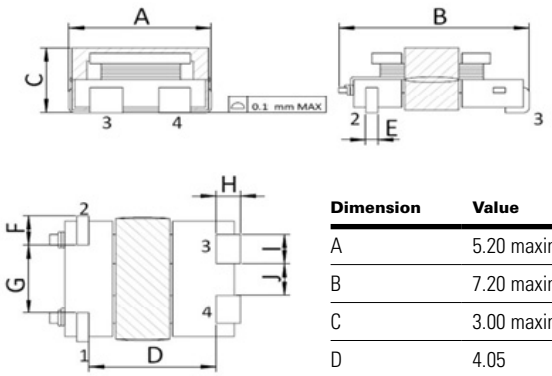
Dimensions (mm)

ECSTA1V0504



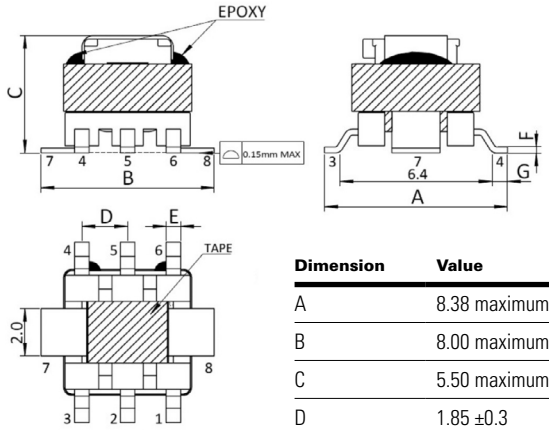
Dimension	Value
A	4.80 maximum
B	3.65 maximum
C	3.55 maximum
E	0.4
F	0.85
G	2.10
J	2.50

ECSTA1V0703



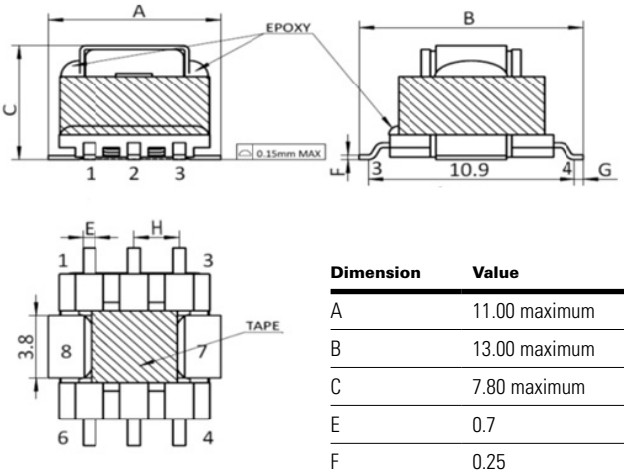
Dimension	Value
A	5.20 maximum
B	7.20 maximum
C	3.00 maximum
D	4.05
E	0.4
F	1.1
G	2.6
H	1.2
I	1.1
J	1.2

ECSTA1V0805



Dimension	Value
A	8.38 maximum
B	8.00 maximum
C	5.50 maximum
D	1.85 ±0.3
E	0.6
F	0.25
G	0.7 ±0.2

ECSTA1V1308



Dimension	Value
A	11.00 maximum
B	13.00 maximum
C	7.80 maximum
E	0.7
F	0.25
G	0.8 ±0.2
H	2.5 ±0.3

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