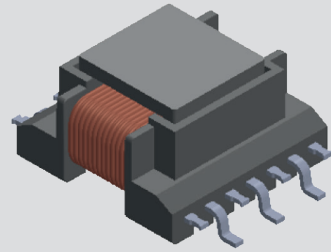


GDAU-005

Forward Gate-Drive Isolated Transformer

INDUCTIVE COMPONENTS / GATE-DRIVE TRANSFORMER



APPLICATION

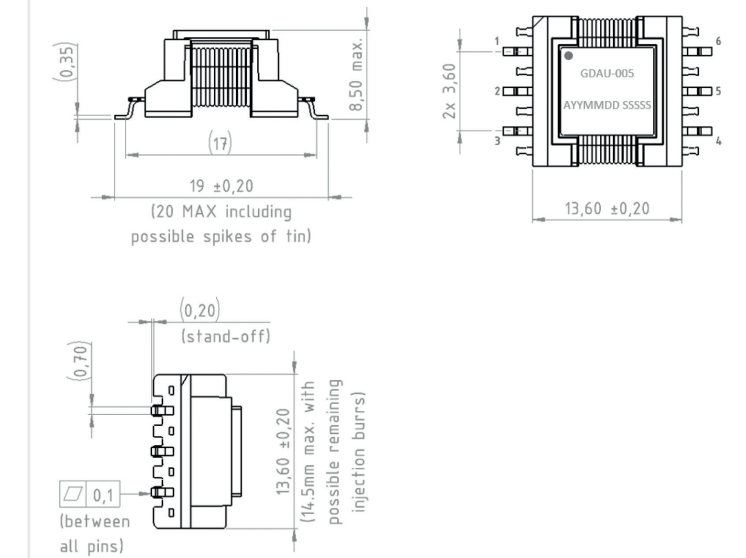
- › Automotive xEV inverters (IGBT control)

01 FEATURES

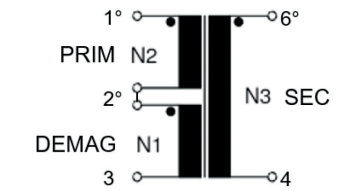
- › Isolated gate-drive transformer for inverters in xEV
- › 1:1.5 turn-ratio
- › Input voltage 5Vdc TYP
- › Switching frequency 120-160kHz (140kHz TYP)
- › MAX Et product 22Vμs (unipolar 50%)
- › MAX current 700mA PRIM / 140mA SEC
- › Working voltage up to 1000Vdc MAX
- › Basic isolation (PD3)
- › Creepage distance > 10mm (CTI-I > 600V)
- › Wide operating temperature range -40 to +125°C
- › UL94 and RoHS materials
- › Design based on AEC-Q200D
- › Weight: approx. 3grams

02 SPECIFICATIONS

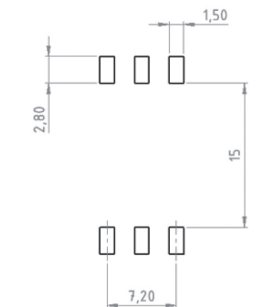
DIMENSIONS (mm)



ELECTRICAL DIAGRAM (Top View)



RECOMMENDED PAD-LAYOUT



ELECTRICAL SPECIFICATIONS

INDUCTANCE at 25°C

L_{1-2} (100kHz/0.1mVac) 70-150μH (110μH TYP)

TURN-RATIO

$N_{6-4} : N_{1-2}$ (1-10kHz/1Vac) 5:1

DC RESISTANCE at 25°C

$DCR_{1-2} / DCR_{2-3} / DCR_{4-6}$ 0.15Ω / 0.4Ω / 1.8Ω MAX

LEAKAGE INDUCTANCE

L_{LK} (100kHz/1Vac) 1.5μH MAX (1μH TYP)

STRAY CAPACITANCE

C_{p5} (100kHz/1Vac) 15pF MAX (10pF TYP)

DIELECTRIC STRENGTH

Between PRIM/SEC Wdgs 2.5kVac (50Hz/3mA/1min)