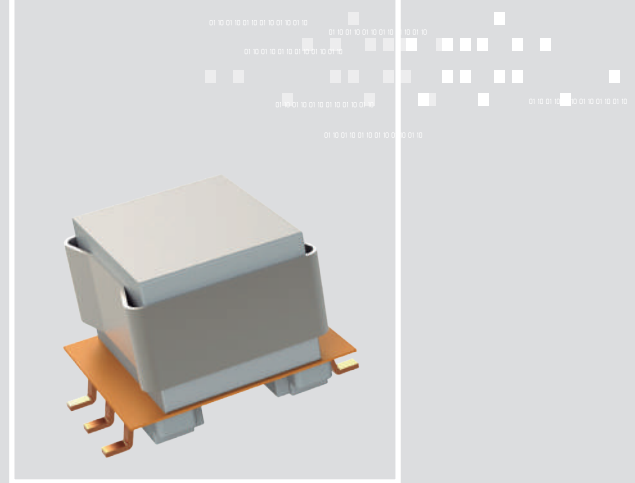


New

GDAU-002

Gate-Drive Transformer 1:1:5 16V_{us}

INDUCTIVE COMPONENTS / GATE-DRIVE TRANSFORMER



APPLICATIONS

- › Automotive inverters for electrical motors in EV/PHV

01 FEATURES

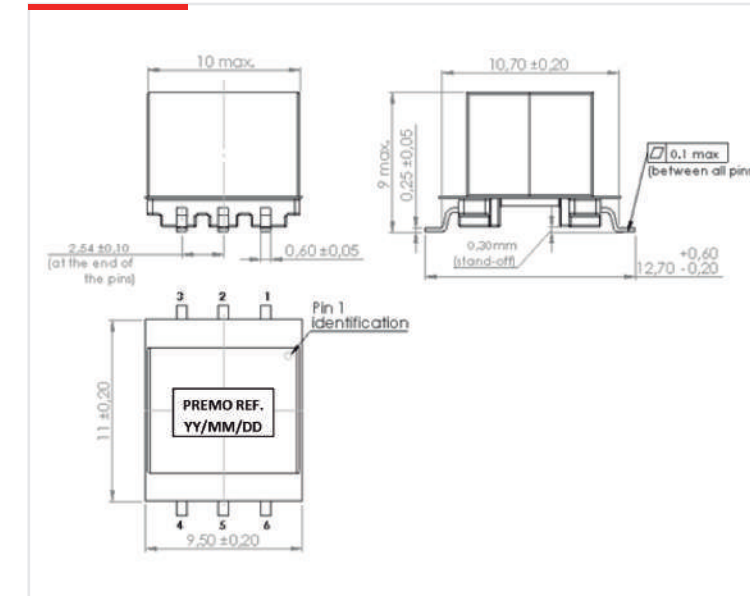
- › Gate-Drive Transformer for IGBT control
- › Forward operation (demagnetizing winding included)
- › Working voltage up to 500Vdc
- › Insulation 3kV
- › ETmax product of 16V_{us}
- › Wide operating temperature range -40 to +125°C
- › UL94 and RoHS materials
- › AEC-Q200 qualified
- › Weight : approx 2grams

02 OPERATION

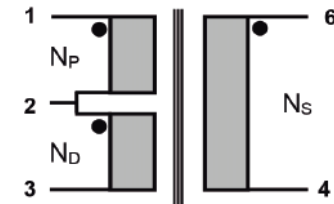
- › IGBT control

03 SPECIFICATIONS

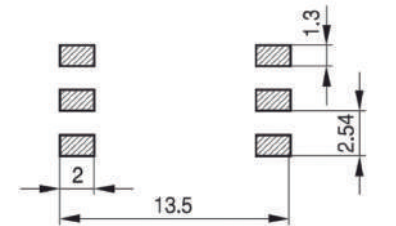
DIMENSIONS



ELECTRICAL DIAGRAM



RECOMMENDED PAD-LAYOUT



ELECTRICAL SPECIFICATIONS

INDUCTANCE at 25°C

L_{1-2} (100kHz/0,1Vac)	$60\mu\text{H} \leq 90\mu\text{H TYP} \leq 110\mu\text{H}$
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TURN-RATIO

$N_{1-2} : N_{2-3} : N_{6-4}$ (10kHz/1Vac)	1:1:5
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DC RESISTANCE at 25°C

$\text{DCR}_{1-2} = \text{DCR}_{2-3}$	0.3Ω MAX (0.26Ω TYP)
DCR_{4-6}	0.55Ω MAX (0.45Ω TYP)

LEAKAGE INDUCTANCE

Llk_{1-2} (100kHz/1Vac)	0.4μH MAX (0.15μH TYP)
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STRAY CAPACITANCE

CPS (100kHz/1Vac)	50pF MAX
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DIELECTRIC STRENGTH

Between Windings	3kVdc (3mA/1min)
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