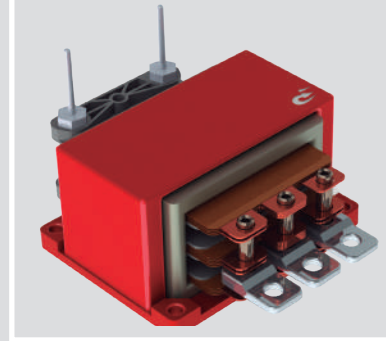


New

DCDC414-002

ZVS PSFB Transformer 3kW 100kHz 26:1+1

INDUCTIVE COMPONENTS / DCDC TRANSFORMERS



APPLICATIONS

- › Automotive HV/LV DCDC onboard converters

01 FEATURES

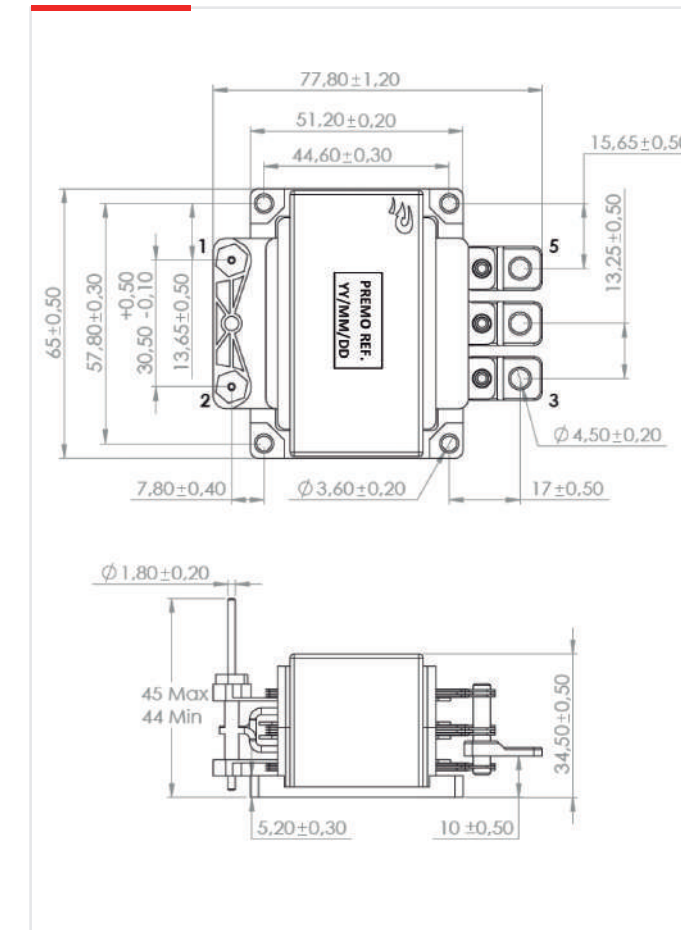
- › ZVS Phase-Shift Full-bridge 3kW transformer
- › Work with ZVS inductor 14μH / 14Apk
- › Recommended output inductor 1μH / 180Adc
- › Switching frequency 100kHz
- › UL94 and RoHS materials (F/155°C)
- › Design based on AEC-Q200
- › Weight : approx 350grams

02 OPERATION

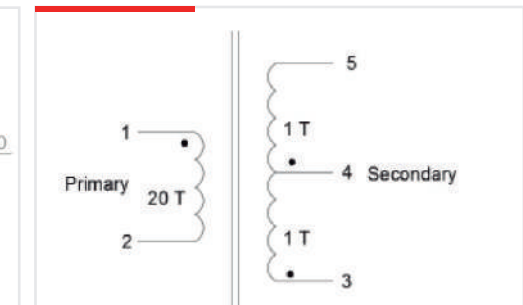
- › $V_{in} = 420-850V_{dc}$ / $V_{out} = 14V_{dc}$
- › Operating temperature $-40/+125^{\circ}C$ with cooling

03 SPECIFICATIONS

DIMENSIONS



ELECTRICAL DIAGRAM



ELECTRICAL SPECIFICATIONS

INDUCTANCE at 25°C

L1-2 = Lp (100kHz/1Vac)	2,25mH ±20%
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DC RESISTANCE at 25°C

R1-2	30mΩ MAX
R3-5	0,30mΩ MAX

TURN-RATIO

Np:Ns	20:1+1
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LEAKAGE INDUCTANCE

Llk1-2 (100kHz/1Vac, 3-4- 5 shorted)	8μH MAX
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DIELECTRIC STRENGTH

{Np}/{Ns+CORE}	3kVac/50Hz/5mA/1min*
{Ns}/{CORE}	500Vac/50Hz/5mA/1min*

(*) 1min in qualification / 2sec in mass production