

New

DCDC214-002

ZVS PSFB Transformer 2,5kW 100kHz 30:1+1

INDUCTIVE COMPONENTS / DCDC TRANSFORMERS



APPLICATIONS

- › Automotive HV/LV DCDC onboard converters

01 FEATURES

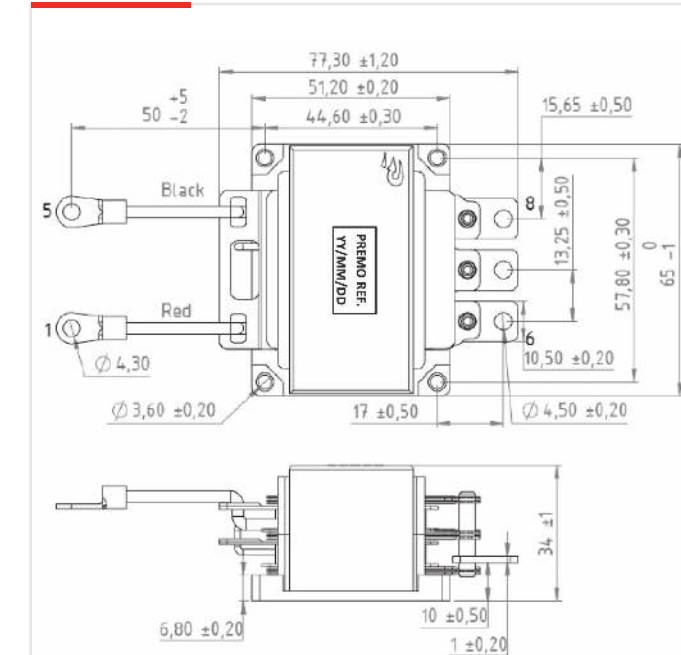
- › ZVS Phase-Shift Full-bridge 2,5kW transformer
- › Work with ZVS inductor 14μH / 14Apk
- › Recommended output inductor 1μH / 180Adc
- › Switching frequency 100kHz
- › UL94 and RoHS materials (F/155°C)
- › Design based on AEC-Q200
- › Weight : approx 350grams

02 OPERATION

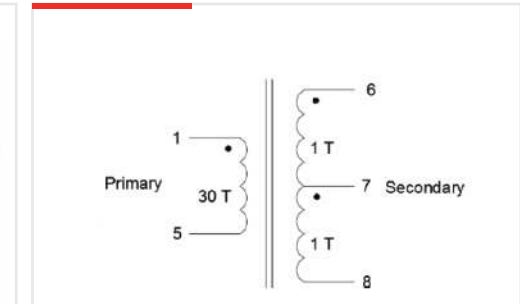
- › $V_{in} = 376-820V_{dc}$ / $V_{out} = 14V_{dc}$
- › Operating temperature $-40/+125^{\circ}C$ with cooling

03 SPECIFICATIONS

DIMENSIONS



ELECTRICAL DIAGRAM



ELECTRICAL SPECIFICATIONS

INDUCTANCE at 25°C

L1-5 = Lp (100kHz/1Vac)	915μH ±25%
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DC RESISTANCE at 25°C

R1-5	95mΩ MAX
R6-8	0,25mΩ MAX

TURN-RATIO

Np:Ns	30:1+1
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LEAKAGE INDUCTANCE

Llk1-5 (100kHz/1Vac, 6-7-8 shorted)	10μH 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