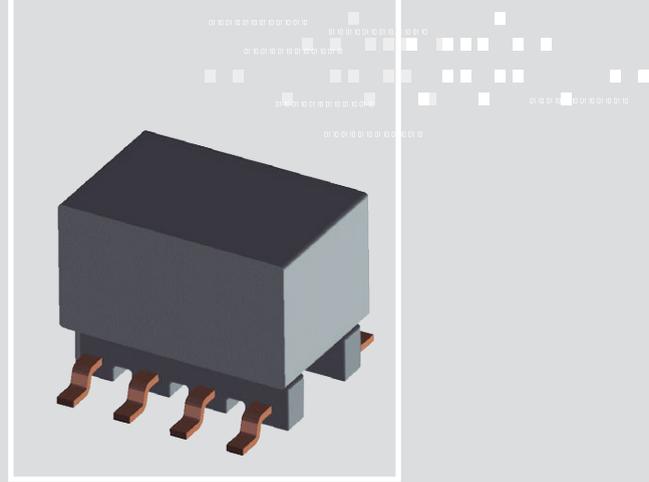


New

PLC-LW-001

2-30MHz 1:1 15μH

INDUCTIVE COMPONENTS / PLC TRANSFORMERS



APPLICATIONS

- › Automotive EV/PHV AC/DC onboard battery chargers

01 FEATURES

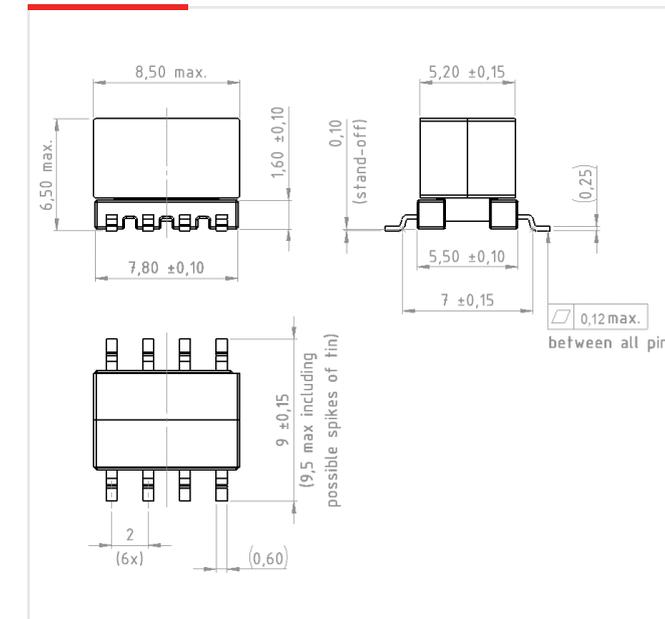
- › Signal transformer for HPGP (HomePlug Green PHY™) PLC modems.
- › For power line communication devices acc. to IEC 15118 standard.
- › For charging systems according to IEC 61851-1.
- › Insertion loss < 1dB on 2-30MHz (100-120 Ohms).
- › SMD coil-former technology.
- › Wide operating temperature range -40 to +125°C.
- › UL94 and RoHS materials.
- › Designed for AEC-Q200.
- › Weight: approx 1 gram.

02 OPERATION

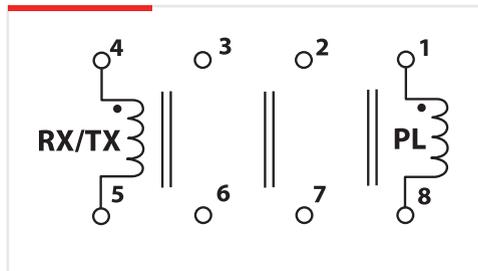
- › PLC signal transmission.
- › OBC with communication with the charging station.

03 SPECIFICATIONS

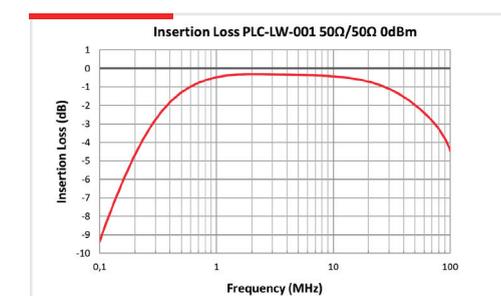
DIMENSIONS (mm)



ELECTRICAL DIAGRAM



TYPICAL INDUCTANCE



ELECTRICAL SPECIFICATIONS

INDUCTANCE at 25°C	
$L_{1-8} = L_{4-5}$ (2MHz/1Vac)	9μH MIN < (22μH TYP) < 40μH MAX
TURN-RATIO	
$N_{1-8} : N_{4-5}$ (10kHz/1Vac)	1:1
DC RESISTANCE at 25°C	
$DCR_{1-8} = DCR_{4-5}$	80mΩ MAX (65mΩ TYP)
LEAKAGE INDUCTANCE	
L_{LK} (100kHz/1Vac)	0.25μH MAX (0.1μH TYP)
STRAY CAPACITANCE	
C_{PS} (100kHz/1Vac)	7pF MAX (5pF TYP)
DIELECTRIC STRENGTH	
Between Windings	500Vac (50Hz/1mA/1min)