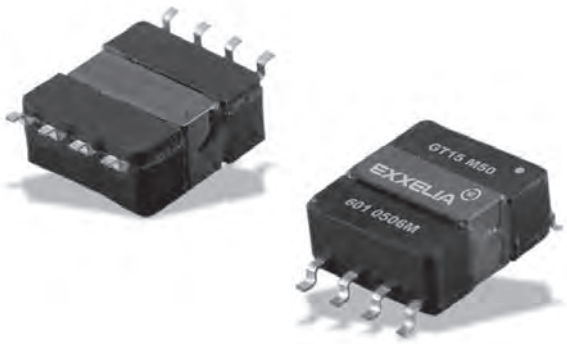
Gate Drive Transformer
GDT 15 Series

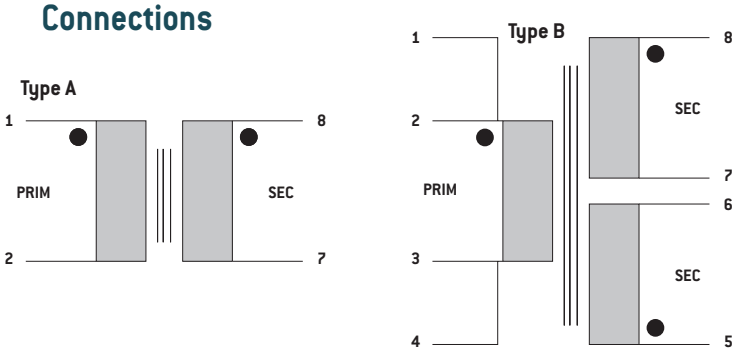


- Excellent performances in Low-profile package
- Suited for Avionics and Space applications
- Frequency range: 50 kHz - 500 kHz
- Applied standards: ECSS-Q-70-71 / ESCC-3201 screening flow applied / ABD-0100 / DO-160
- Materials meet UL94-V0 rating
- Approx. weight: 5 grams

Electrical Data (25°C)

ID Code	ET (Vμs)	Primary Inductance Max	Turn ratio ± 1%	DC Resistances ± 15% (mΩ)	Leakage Inductance	Interwinding Capacitance	Connection Type
GDT15 M50 60 1WR	60	L_{1-4} > 500μH (10kHz - 1V_{RMS})	N_{7-6} / N_{1-4} = 1.52	R_{1-4} = 170 R_{6-7} = 400	Lf_{1-4} < 2.0μH ($_{6-7}$ in short circuit)	$C_{1-4/6-7}$ < 150 pF	A
GDT15 M85 80 2WR	80	L_{1-4} > 850μH (10kHz - 1V_{RMS})	1/1/1	R_{1-3} = 400 R_{8-7} = 400 R_{6-5} = 400	$Lf_{1-2/3-4}$ < 25μH	$C_{1-4/6-7}$ < 150 pF	B

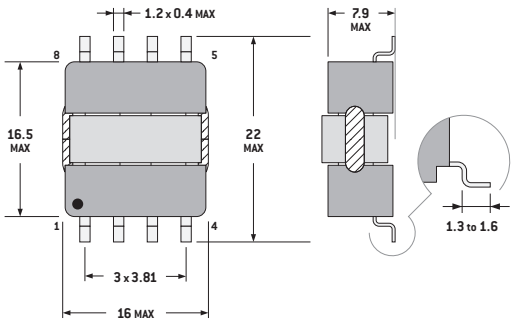
Connections



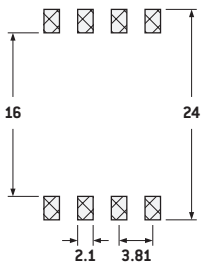
Notes

- Insulation class (windings): Classe H
- Operating temperature: –55°C to +125°C
- Storage temperature: –55°C to +140°C
- Dielectric Strength: 500 V_{RMS} - 50 Hz
- Isolation Voltage: 500 V_{DC} - 50 min (Ri ≥ 100MΩ)

Dimensions (mm, top view)

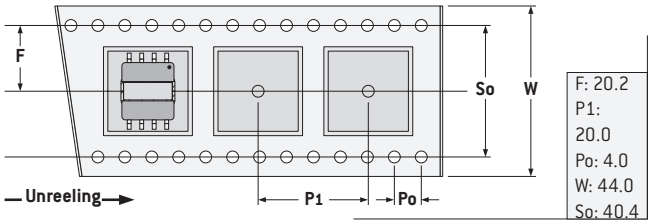


PCB Layout (suggested)



Packaging

Tape and Reel:
400 units per reel of diameter 330 mm



Marking

yyww:
Date code

HIGH GRADE PRODUCTS

Gate Drive Transformer
GDT 91 Series

- Excellent performances in Low-profile package
- Suited for Avionics and Space applications
- Working frequency (duty cycle 50%): up to 500 kHz max.
- Applied standards: ECSS-Q-70-02 / ESCC-3201 screening flow applied / MIL-STD-202
- Materials meet UL94V-0 rating
- Weight: 2 grams

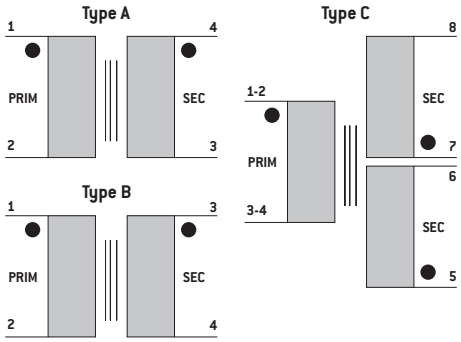
Electrical Data (25°C)

ID Code	ET (Vμs)	Primary Inductance max.	Turn ratio ± 0,5%	DC Resistances	Admissible current	Leakage Inductance	Working frequency (duty cycle 50%)	Withstanding voltage P/S	Connection Type
GDT91 M50 50 1WR	50	L_{1-2} > 500μH (10kHz - 1V_{RMS})	N_{1-2} / N_{4-3} = 1	R_{1-2} R_{4-3} ≤ 1.25 Ω	150 mA	Lf_{1-2} < 1μH ($_{3-4}$ in short circuit)	500 kHz	500 V_{RMS} 50 Hz 3 sec.	A
GDT91 6M0 135 1WR	135	L_{1-2} > 6 mH	N_{1-2} / N_{4-3} = 1	R_{1-2} R_{3-4} ≤ 10.5 Ω	15 mA	Lf_{1-2} < 20μH ($_{3-4}$ in short circuit)	100 kHz	500 V_{RMS} 50 Hz 3 sec.	B
GDT91 M90 50 2WR	50	$L_{1-2-3-4}$ > 600μH	1/1/1 ±2%	$R_{1-2,\ 3-4}$ < 900 mΩ $R_{5-6\&7-8}$ < 1900 mΩ	I_p = 100 mA I_S = 50 mA	$Lf_{1-2-3-4}$ < 2μH (secondaries in short circuit)	500 kHz	250 V_{RMS}	C

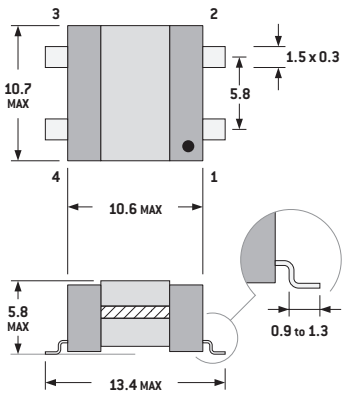
Notes

- CuZn36 terminations with Ni+Sn for RoHS variant and Cu+SnPb60/40 for space variant.
- Operating temperature: –55°C to +125°C
- Storage temperature: –55°C to +140°C
- Reflow soldering oven compliant +260°C -10 sec. admissible peak temperature
- Dielectric withstanding voltage P/S: 500 V_{RMS} 50 Hz 3 sec.
- Rth@ 125°C: 62°C/W
- Thermal index: +155°C

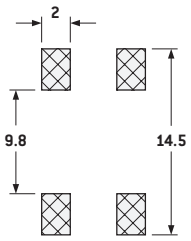
Connections



Dimensions (mm, top view)

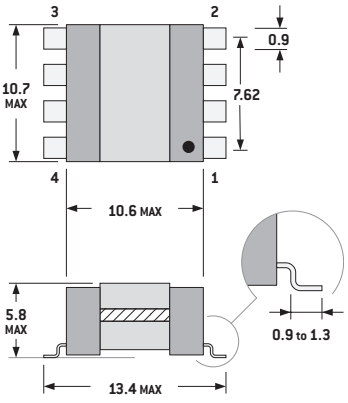


PCB Layout (suggested)

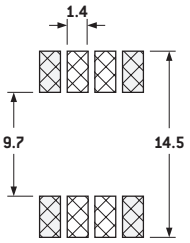


Type A & B

Dimensions (mm, top view)



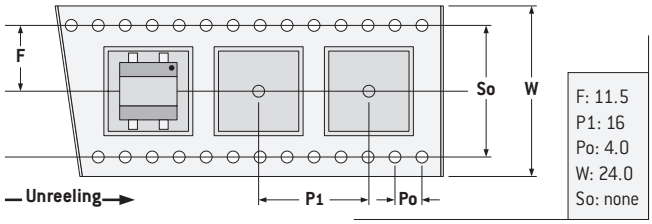
PCB Layout (suggested)



Type C

Packaging

Tape and Reel:
700 pieces per reel of diameter 330 mm



Marking

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Date code