

# 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

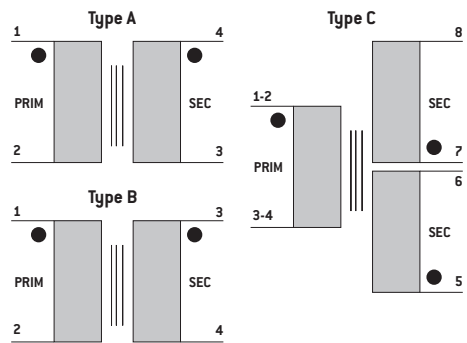
## Electrical Data (25°C)

ID Code	ET (V $\mu$ s)	Primary Inductance max.	Turn ratio $\pm 0,5\%$	DC Resistances	Admissible current	Leakage Inductance	Working frequency (duty cycle 50%)	Withstanding voltage P/S	Connection Type
GDT91 M50 50 1WR	50	$L_{1-2} > 500\mu\text{H}$ (10kHz - 1V <sub>RMS</sub> )	$N_{1-2} / N_{4-3} = 1$	$R_{1-2} R_{4-3} \leq 1.25 \Omega$	150 mA	$L_{f1-2} < 1\mu\text{H}$ (3.4 in short circuit)	500 kHz	500 V <sub>RMS</sub> 50 Hz 3 sec.	A
GDT91 6M0 135 1WR	135	$L_{1-2} > 6 \text{ mH}$	$N_{1-2} / N_{4-3} = 1$	$R_{1-2} R_{3-4} \leq 10.5 \Omega$	15 mA	$L_{f1-2} < 20\mu\text{H}$ (3.4 in short circuit)	100 kHz	500 V <sub>RMS</sub> 50 Hz 3 sec.	B
GDT91 M90 50 2WR	50	$L_{1-2,3-4} > 600\mu\text{H}$	$1/1/1 \pm 2\%$	$R_{1-2,3-4} < 900 \text{ m}\Omega$ $R_{5-6,7-8} < 1900 \text{ m}\Omega$	$I_p = 100 \text{ mA}$ $I_s = 50 \text{ mA}$	$L_{f1-2,3-4} < 2\mu\text{H}$ (secondaries in short circuit)	500 kHz	250 V <sub>RMS</sub>	C

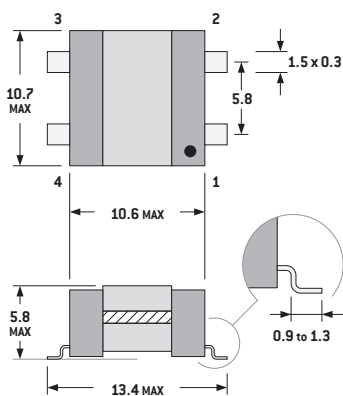
## Notes

- 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<sub>RMS</sub> 50 Hz 3 sec.
- R<sub>th</sub>@ 125°C: 62°C/W
- Thermal index: +155°C

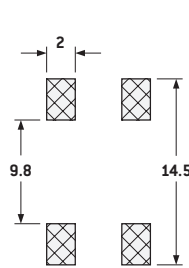
## Connections



## Dimensions (mm, top view)

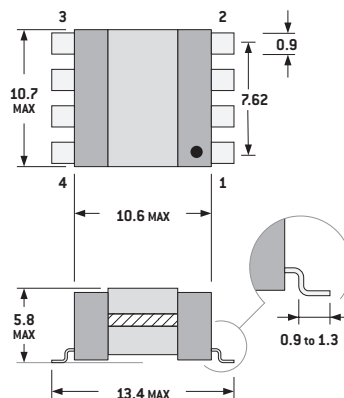


## PCB Layout (suggested)

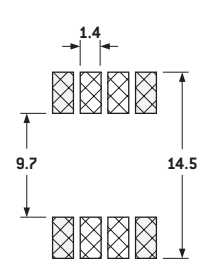


## Type A & B

## Dimensions (mm, top view)



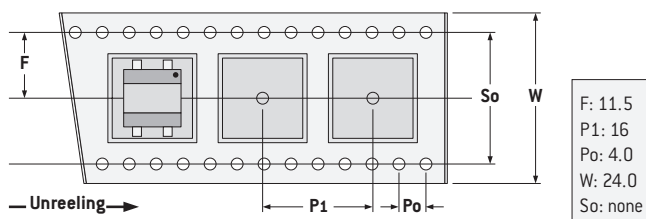
## PCB Layout (suggested)



## Type C

## Packaging

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



F: 11.5  
P1: 16  
Po: 4.0  
W: 24.0  
So: none

## Marking



yyww:  
Date code