

# Gate Drive Transformer GDT91 Series



- Excellent performances in low profile package
- Suited for Avionics and Space applications
- Frequency: 50Khz - 200 KHz
- Applied standards: ECSS-Q-70-02 / ESCC-3201 screening flow applied / MIL-STD-202
- Materials meet UL94V-0 rating
- Weight : 2grams

## Electrical Data (25°C)

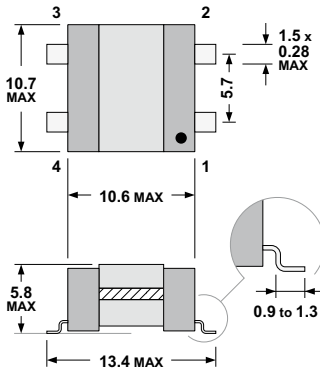
ID Code	ET (Vµs)	Primary Inductance Max	Turn ratio ± 0,5%	DC Resistances	Isolation Voltage	Leakage Inductance	Interwinding Capacitance	Connection Type
GDT91 M50 20 1WR	20	$L_{1-2} > 500\mu\text{H}$ (10kHz - $1V_{\text{RMS}}$ )	$N_{1-2} / N_{4-3} = 1$	$R_{1-2} \leq 1.25\Omega$ $R_{3-4} \leq 1.25\Omega$	500 VDC - 1 min ( $R_i \geq 100M\Omega$ )	$L_{f1-2} < 1\mu\text{H}$ ( $_{3-4}$ in short circuit)	$C_{1-2/3-4} < 100\text{ pF}$	A
GDT91 M50 50 1WR	50	$L_{1-4} > 500\mu\text{H}$ (10kHz - $1V_{\text{RMS}}$ )	$N_{1-4} / N_{2-3} = 1$	$R_{1-4} \leq 3.1\Omega$ $R_{2-3} \leq 3.1\Omega$	250 VDC - 1 min ( $R_i \geq 100M\Omega$ )	$L_{f1-4} < 1\mu\text{H}$ ( $_{2-3}$ in short circuit)	$C_{1-4/2-3} < 150\text{ pF}$	B

ID Code	V peak Max	I peak Max	I average Max
GDT91 M50 20 1WR	7,5V	1A (100ns)	50 mA
GDT91 M50 50 1WR	2,4V	1A (100ns)	15 mA

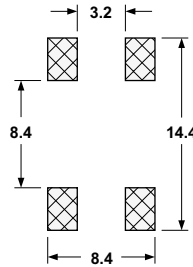
## Notes

- Insulation class (windings) : Classe H2
- Operating temperature : -55 °C to +125 °C
- Storage temperature : -55 °C to +140 °C

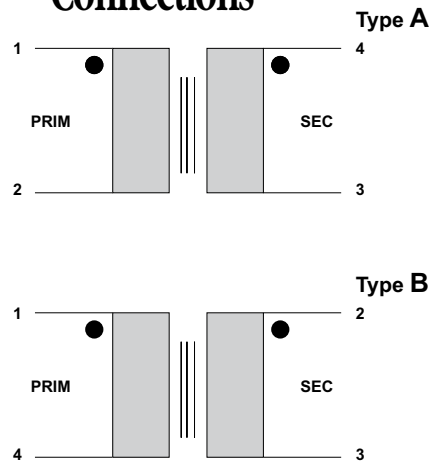
## Dimensions (mm, top view)



## PCB Layout (suggested)

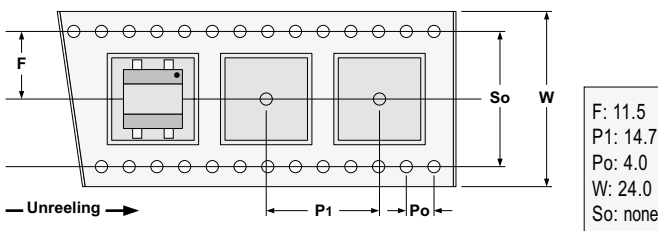


## Connections

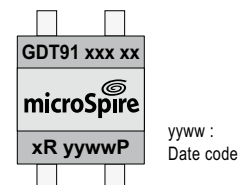


## Packaging

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



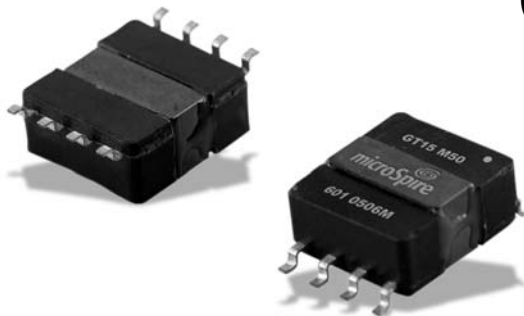
## Marking



High Grade Technologies...  
Power Magnetics...  
Gate Drive Transformers...



# Gate Drive Transformer GDT15 Series

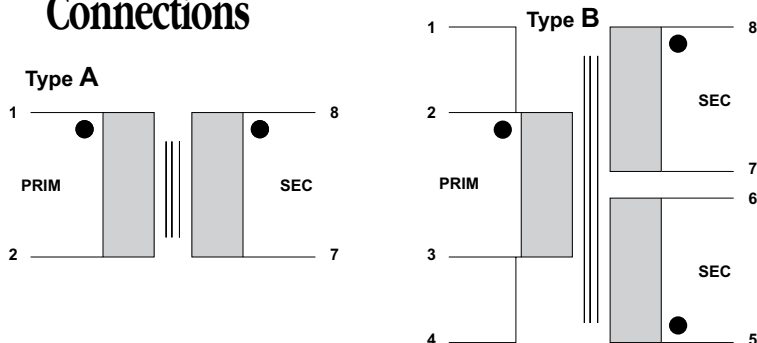


- Excellent performances in low profile package
- Suited for Avionics and Space applications
- Frequency range : 50 Khz - 500 Khz
- Applied standards : ECSS-Q-70-71 / ESCC-3201 screening flow applied / ABD-0100 / DO-160
- Materials meet UL94-V0 rating
- Approx. weight : 5grams

## 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	$L_{1-4} > 500\mu\text{H}$ (10kHz - 1V <sub>RMS</sub> )	$N_{7-6} / N_{1-4} = 1.52$	$R_{1-4} = 170$ $R_{6-7} = 400$	$L_{f1-4} < 2.0\mu\text{H}$ ( <sub>6-7</sub> in short circuit)	$C_{1-4/6-7} < 150\text{ pF}$	A
GDT15 M85 80 2WR	80	$L_{1-4} > 850\mu\text{H}$ (10kHz - 1V <sub>RMS</sub> )	1/1/1	$R_{1-3} = 400$ $R_{6-7} = 400$ $R_{8-5} = 400$	$L_{f1-2/3-4} < 25\mu\text{H}$	$C_{1-4/6-7} < 150\text{ pF}$	B

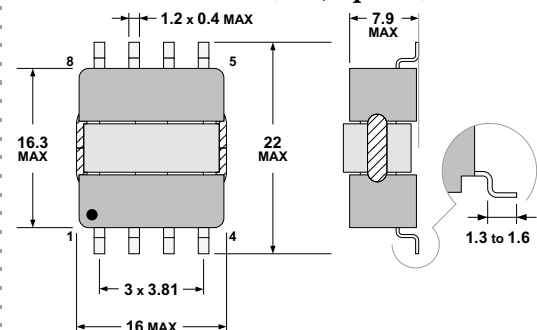
## Connections



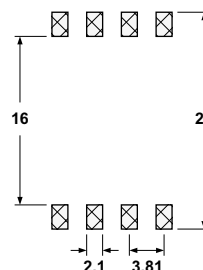
## Notes

- Insulation class (windings): Classe H
- Operating temperature : -55 °C to +125 °C
- Storage temperature : -55 °C to +140 °C
- Dielectric Strength : 500 V<sub>RMS</sub> -50 Hz
- Isolation Voltage : 500 VDC -50 min (Ri ≥ 100MΩ)

## Dimensions (mm, top view)

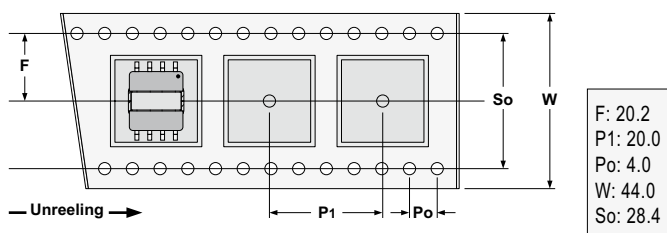


## PCB Layout (suggested)

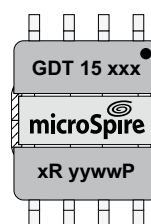


## Packaging

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



## Marking



yyww :  
 Date code

