

## Vishay Custom Magnetics

## **Micro Gate Drive Transformers**



ABSOLUTE MAXIMUM RATINGS										
PARAMETER	CONDITIONS	LIMITS	UNITS							
Dielectric withstand voltage	Drive to gate, 1 min	1500	$V_{DC}$							
	Gate to gate, 1 min	500	$V_{DC}$							
Winding current	Any winding	100	mA <sub>RMS</sub>							
Total power dissipation (1)		400	mW							
Operating temperature	Continuous	-55 to +130	°C							
Storage temperature	Continuous	-55 to +155	°C							
Frequency		125 to 750	kHz							
Size (L x W x H)		8.9 x 6.6 x 5.6	mm							
Terminals	Surface-mount									

## FEATURES RoHS\*

- Deliver MOSFET / IGBT gate power and timing signals simultaneously
- Directly drive high side MOSFETs / IGBTs on busses up to 200 V
- Excellent rise time, overshoot, and peak current characteristics
- For lead (Pb)-free parts, please add "-LF" to the end of the part number
- Material categorization: for definitions of compliance please see <a href="https://www.vishav.com/doc?99912">www.vishav.com/doc?99912</a>

### Note

\* This datasheet provides information about parts that are RoHS-compliant and / or parts that are non RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details

### Note

(1) Derate at 5 mW/°C above 25 °C

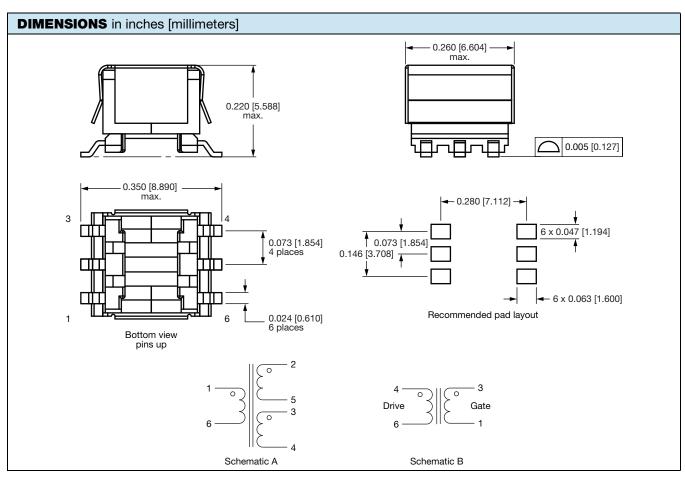
STANDARD ELECTRICAL SPECIFICATIONS											
PART NUMBER (1)	USEFUL FREQ. RANGE (kHz) TRANSFER RATIO (± 1 %) (2)		DRIVE EXCITATION MAX. (V x µs)	MAGNETIZING INDUCTANCE MIN. (μΗ) <sup>(3)(4)</sup>	LEAKAGE INDUCTANCE MAX. (nH) <sup>(5)</sup>	DC RESISTANCE (3)		INTERWINDING CAPACITANCE			
		RATIO				DRIVE MAX. (Ω)	GATES MAX. (Ω)	DRIVE TO GATE MAX. (pF)	GATE TO GATE MAX. (pF)	SCHEMATIC	
MTBAUGDT125050	125 to 500	1:0.5:0.5	63	330	500	2.0	0.7	60	30	Α	
MTBAUGDT125075	125 to 500	1:0.75:0.75	66	360	500	2.0	2.0	60	30	Α	
MTBAUGDT125100	125 to 500	1:1:1	63	330	500	2.0	2.0	160	160	Α	
MTBAUGDT250101	250 to 750	1:1	25.8	350	1000	1.0	0.65	75	n/a	В	
MTBAUGDT250102	250 to 750	1:1:1	22.4	264	300	1.5	1.5	95	95	Α	
MTBAUGDT250251	250 to 750	2.5 : 1	30.6	473	1500	1.5	0.3	25	n/a	В	
MTBAUGDT250252	250 to 750	2.5 : 1 : 1	23.8	300	900	1.8	0.3	27	27	Α	

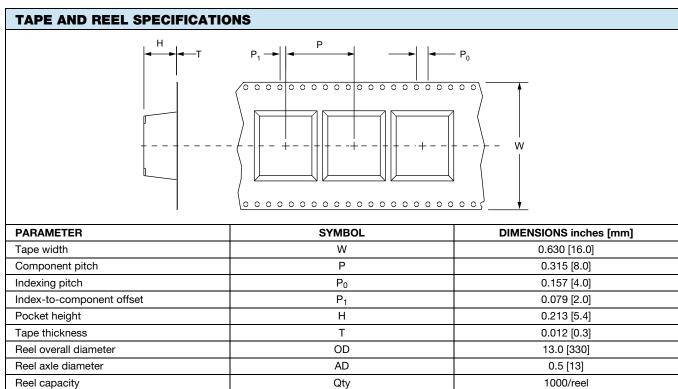
### **Notes**

- (1) For lead (Pb)-free parts, please add "-LF" to the end of the part number
- (2) Drive: gate or drive: gate: gate
- (3)  $T_A = 25 \, ^{\circ}C$
- (4) Small signal measurement across the drive winding with both gates open
- (5) Small signal measurement a across the drive winding with both gates shorted
- (6) Derate at 5 mW/°C above 25 °C



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Vishay

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