

Micro Gate Drive Transformers



FEATURES

RoHS*
Available

- 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 www.vishay.com/doc?99912

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

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 _{RMS}
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		

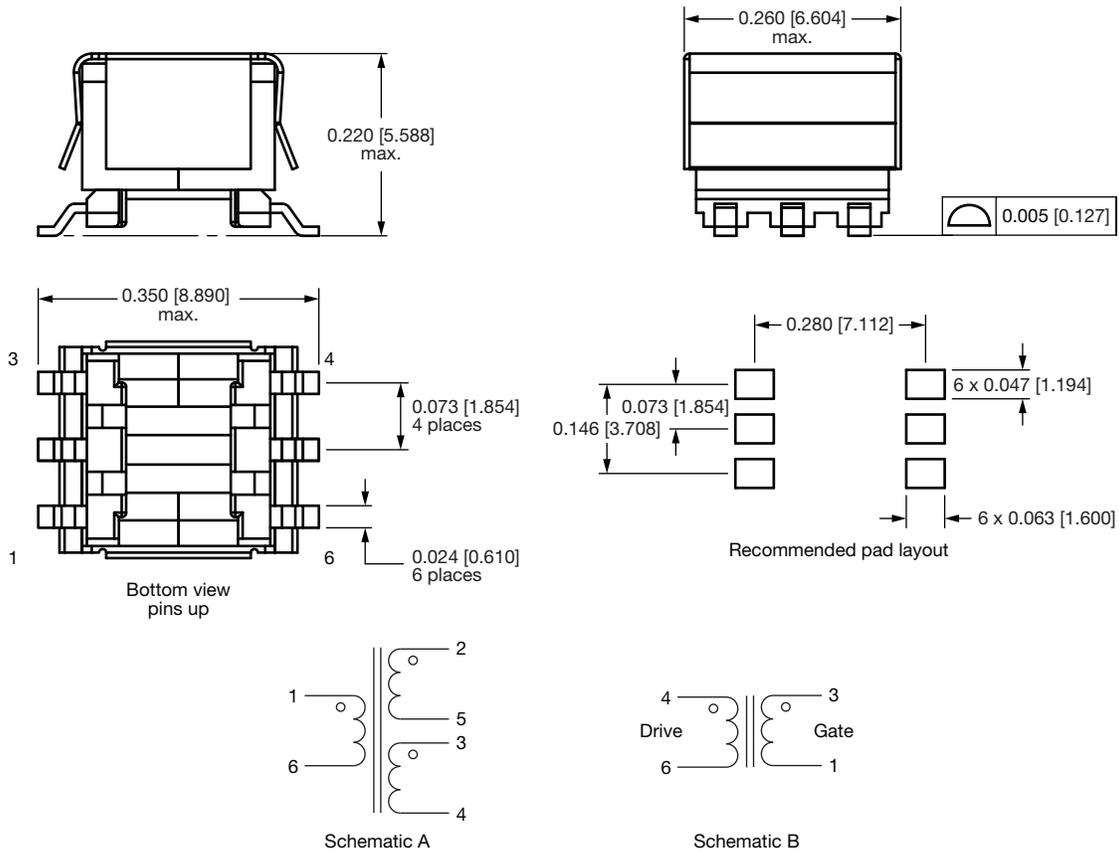
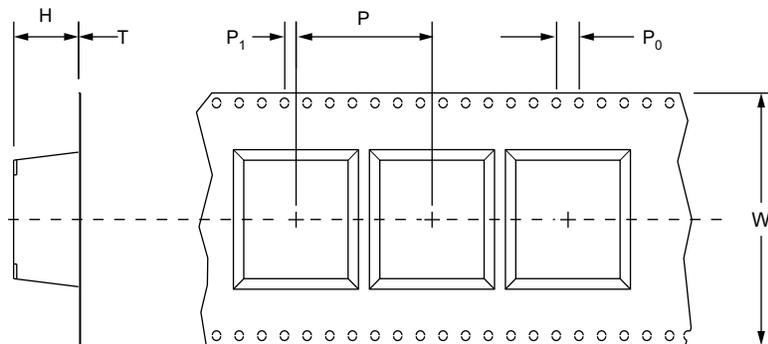
Note

⁽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. (μH) ⁽³⁾⁽⁴⁾	LEAKAGE INDUCTANCE MAX. (nH) ⁽⁵⁾	DC RESISTANCE ⁽³⁾		INTERWINDING CAPACITANCE		SCHEMATIC
						DRIVE MAX. (Ω)	GATES MAX. (Ω)	DRIVE TO GATE MAX. (pF)	GATE TO GATE MAX. (pF)	
MTBAUGDT125050	125 to 500	1 : 0.5 : 0.5	63	330	500	2.0	0.7	60	30	A
MTBAUGDT125075	125 to 500	1 : 0.75 : 0.75	66	360	500	2.0	2.0	60	30	A
MTBAUGDT125100	125 to 500	1 : 1 : 1	63	330	500	2.0	2.0	160	160	A
MTBAUGDT250101	250 to 750	1 : 1	25.8	350	1000	1.0	0.65	75	n/a	B
MTBAUGDT250102	250 to 750	1 : 1 : 1	22.4	264	300	1.5	1.5	95	95	A
MTBAUGDT250251	250 to 750	2.5 : 1	30.6	473	1500	1.5	0.3	25	n/a	B
MTBAUGDT250252	250 to 750	2.5 : 1 : 1	23.8	300	900	1.8	0.3	27	27	A

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 °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

DIMENSIONS in inches [millimeters]

TAPE AND REEL SPECIFICATIONS


PARAMETER	SYMBOL	DIMENSIONS inches [mm]
Tape width	W	0.630 [16.0]
Component pitch	P	0.315 [8.0]
Indexing pitch	P ₀	0.157 [4.0]
Index-to-component offset	P ₁	0.079 [2.0]
Pocket height	H	0.213 [5.4]
Tape thickness	T	0.012 [0.3]
Reel overall diameter	OD	13.0 [330]
Reel axle diameter	AD	0.5 [13]
Reel capacity	Qty	1000/reel



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