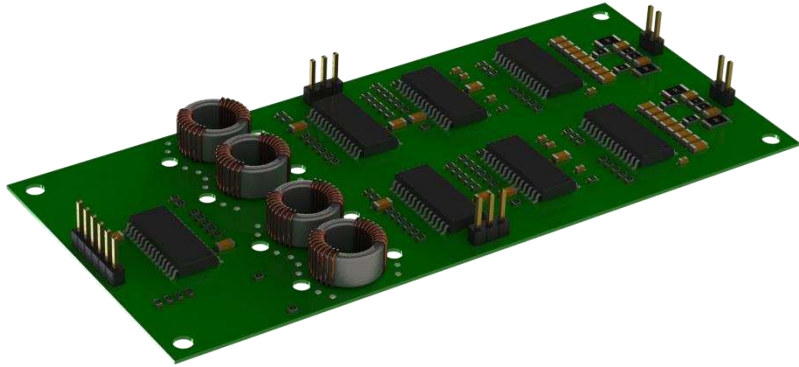


Two Channel High Temperature Isolated SiC JFET Gate Driver

FEATURES

- High Temperature: $T_j = 225\text{ }^\circ\text{C}$
- HTSOI IC for high ambient temperatures
- Programmable UVLO
- $\pm 2\text{ A}$ peak output current
- 100 kHz Switching Frequency
- Galvanic Signal Isolation

100 kHz, $\pm 2\text{A}$


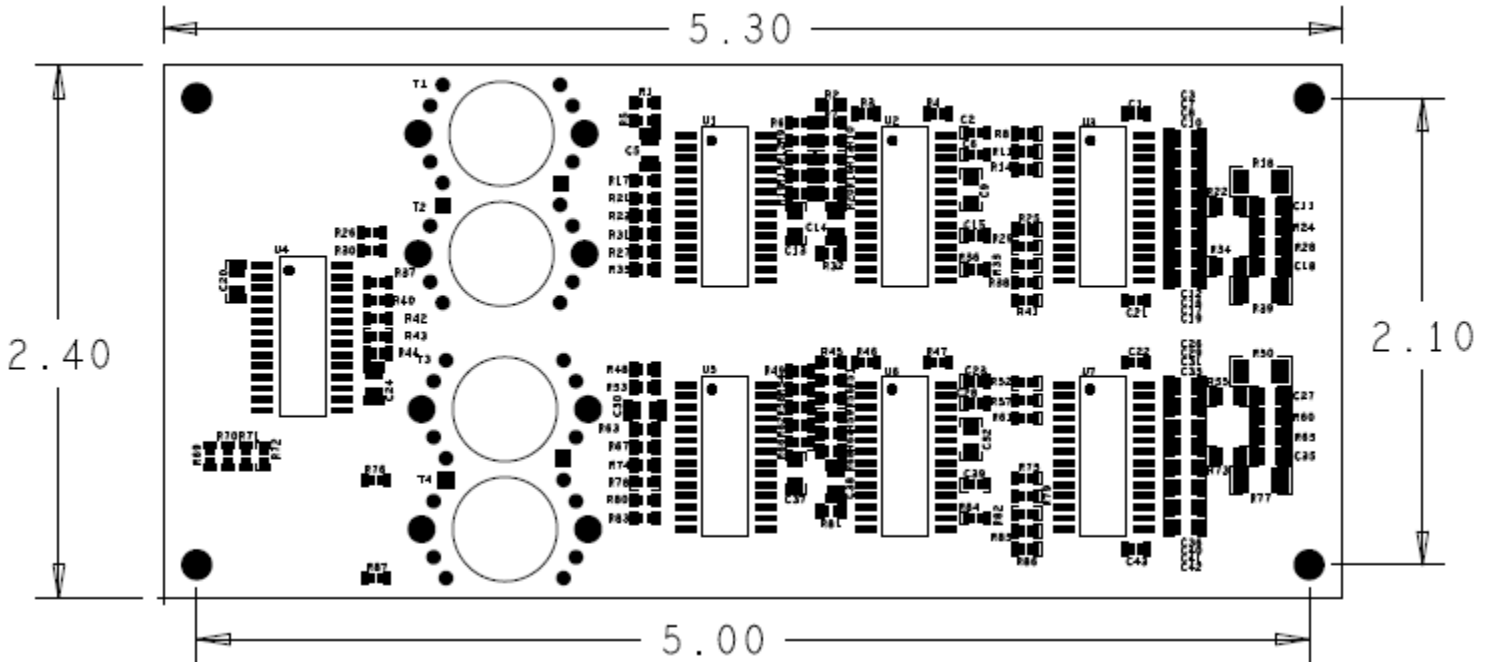
Absolute Maximum Ratings

Symbol	Parameter	Condition	Value	Units
V_{DD}	Primary Power supply		-0.5 to 5.5	V
$V_{DD}-V_{SS}$	Secondary Power Supply		-0.5 to 35	
V_I	Logic Level Inputs		-0.5 to 5.5	V
I_o	Continuous output current	$T_A = 210\text{ }^\circ\text{C}$	± 2	A
I_o	Peak pulsed drain current	$T_A = 210\text{ }^\circ\text{C}$	± 2	A
T_j	Operating junction temperatures		-50 to 225	$^\circ\text{C}$
T_{stg}	Storage temperature		-50 to 225	$^\circ\text{C}$
V_{isol}	Insulation test voltage	AC, 1 min.	TBD	V
		AC, 1 s.	TBD	V

Electrical Characteristics						
Symbols	Parameter	Condition(s)	Values			Units
			Min.	Typical	Max.	
VDD _P	Primary Power Supply		4.5		5.5	V
VDD _S -VSS _S	Secondary Power Supply	UVLO disabled	7		30	V
		UVLO enabled	18		30	
V _{UVLO}	UVLO	Inactive		18		V
		Active		16		
		Hysteresis		2		
V _{IH}	Logic Level input voltages	High-level input voltage	3.84	-	-	V
V _{IL}		Low-level input voltage	-	-	1.1	
V _{IORM}	Working Voltage Isolation			TBD		V
C _{ISO}	Isolation Capacitance			TBD		pF
CMTI	Common Mode Transient Immunity			25		kV/us
R _G	Output Resistance ⁽¹⁾	High		2		Ω
R _G		Low		2		
t _{on}	Output Rise Time	CLOAD=1nF, VCC=15V		10		ns
t _{off}	Output Fall Time	CLOAD=1nF, VCC=15V		10		
F _{sw}	Switching Frequency	Dependent on load, thermal limitation		100		kHz
t _{PHL} , t _{PLH}	Propagation delay	High-to-low/Low-to-High		180		ns

(1) Output resistance of totem pole output IC. Additional Gate resistance is added with SMD resistors.

All dimensions shown are in inches


COMPANION PARTS

Silicon Carbide Discrettes, APE HT-100 series

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