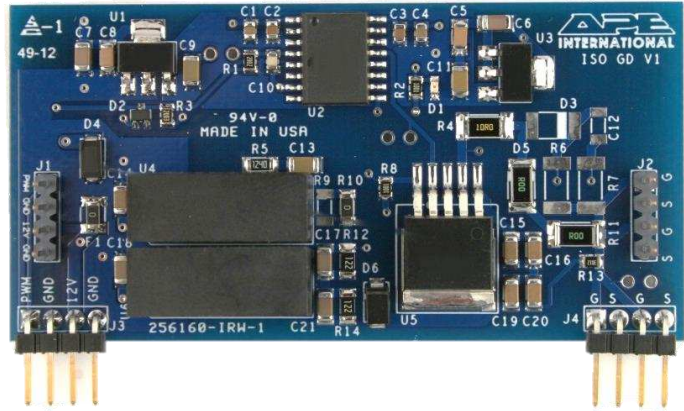


Single Channel Isolated SiC MOSFET Gate Driver
FEATURES

- Industrial Temperature: $T_A = 85\text{ }^\circ\text{C}$
- Isolated 4W Power Supply +20/-5
- $\pm 14\text{ A}$ peak, $\pm 4\text{ A}$ continuous
- 500 kHz Switching Frequency
- 5000V Galvanic Signal Isolation
- Vertical Mounting for reduced Footprint

500 kHz, $\pm 14\text{ A}$

Absolute Maximum Ratings

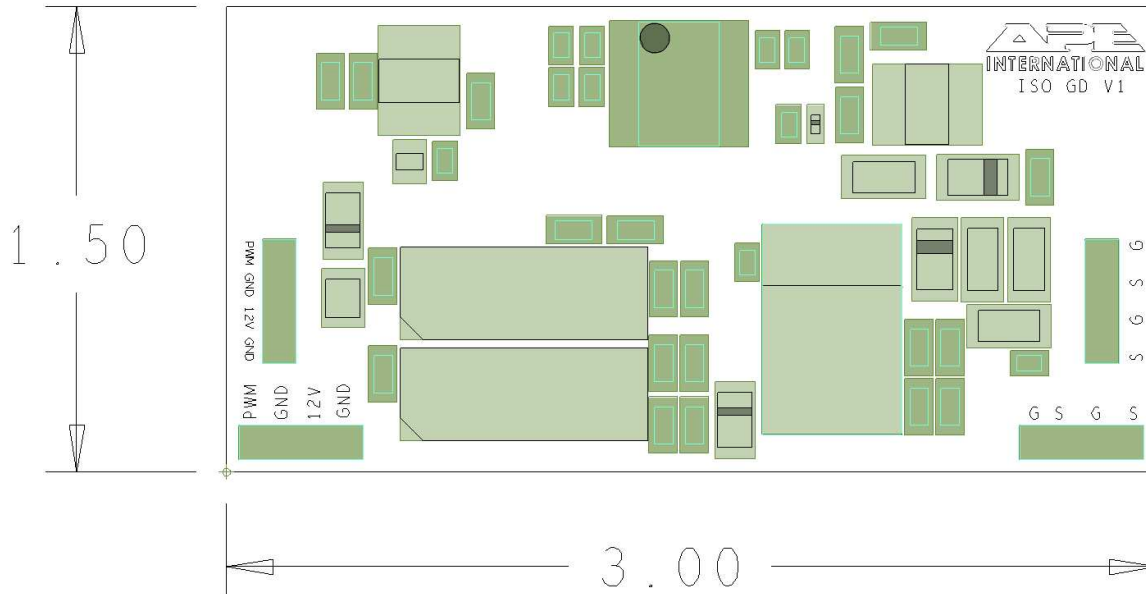
Symbol	Parameter	Condition	Value	Units
V_{DD}	Primary Power supply		-0.5 to 14	V
V_I	Logic Level Inputs		-0.5 to 6	V
I_o	Continuous output current	$T_A = 25\text{ }^\circ\text{C}$	± 4	A
I_o	Peak pulsed drain current	$T_A = 25\text{ }^\circ\text{C}$	± 14	A
T_j	Operating junction temperatures		-50 to 115	$^\circ\text{C}$
T_{stg}	Storage temperature		-50 to 85	$^\circ\text{C}$
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		10	12	14	V
V _{IH}	Logic Level input voltages	High-level input voltage	2	-	-	V
V _{IL}		Low-level input voltage	-	-	0.8	
V _{OH}	Output voltage level	High-level output voltage	V _{DD} -0.025V	-	-	V
V _{OL}		Low-level output voltage	-	-	V _{SS} +0.025V	V
V _{IORM}	Working Voltage Isolation			891		V
C _{ISO}	Isolation Capacitance			50		pF
CMTI	Common Mode Transient Immunity		20	45		kV/us
R _G	Output Resistance ⁽¹⁾	High		0.4	0.8	Ω
R _G		Low		0.3	0.6	
t _{on}	Output Rise Time	CLOAD=15nF, VCC=18V T _A =25°C		25		ns
t _{off}	Output Fall Time	CLOAD=15nF, VCC=18V T _A =25°C		18		
F _{sw}	Switching Frequency	Dependent on load, thermal limitation		500		kHz
t _{PHL} , t _{PLH}	Propagation delay	High-to-low/Low-to-High		60		ns

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

PACKAGE DIMENSIONS

All dimensions shown are in inches



COMPANION PARTS

Silicon Carbide Schottky Diode, APE-HT-xxxx
 Silicon Carbide Discretes, APE-HT-0100 series

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