

5 W DC-DC CONVERTER

Type	V_i	V_o	I_o
GS5T48-12	38 to 60 V	12 V	420 mA

DESCRIPTION

The GS5T48-12 is a 5W DC-DC converter designed to provide a 12V/420mA isolated power source.

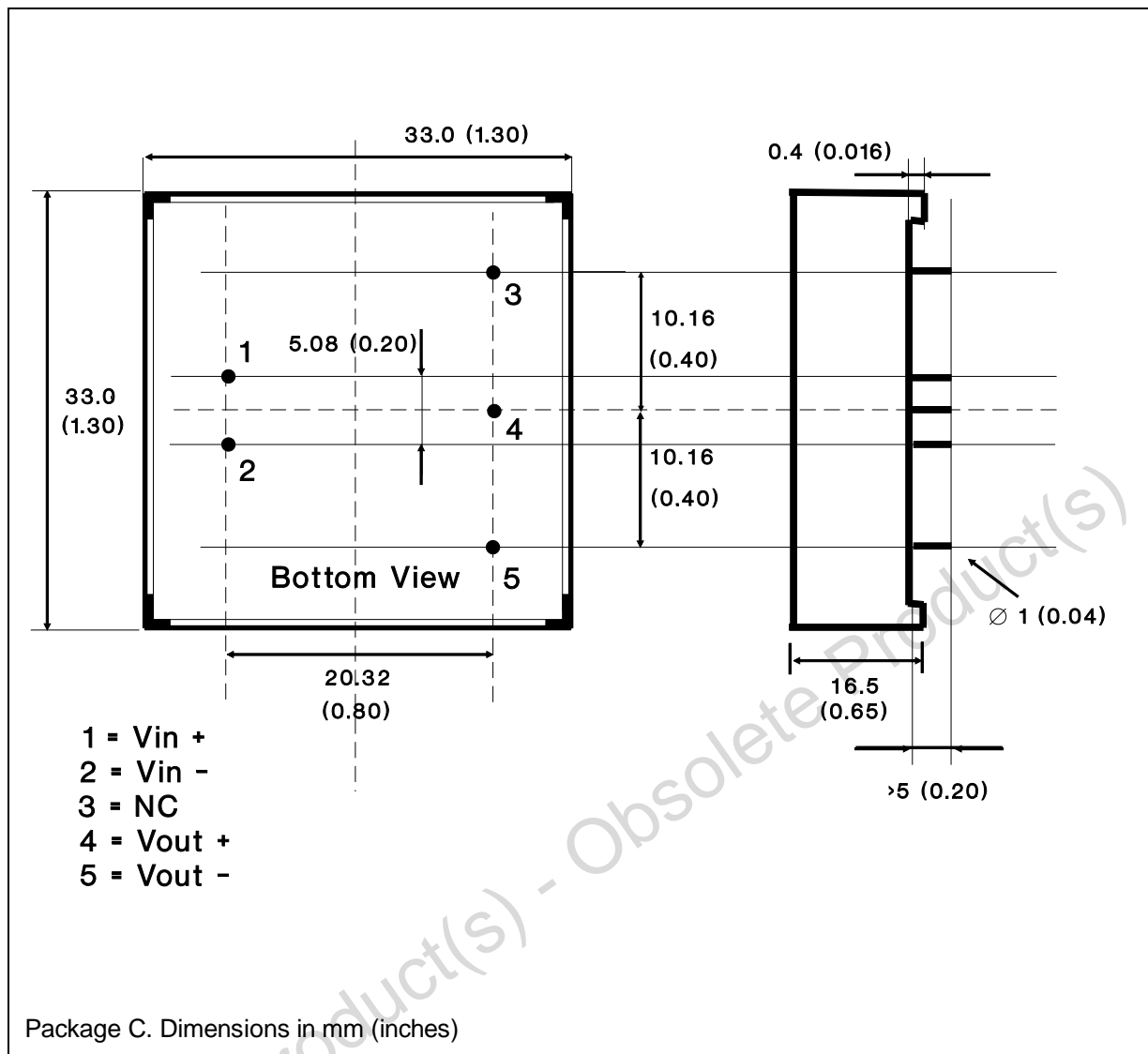
The module features a wide input voltage range (38 to 60V), low reflected input current and continuous short-circuit protection. It is certified by UL, CSA (level 3) and TUV as having SELV output when provided with a SELV input.



ELECTRICAL CHARACTERISTICS ($T_{amb.} = 25^\circ \text{C}$ unless otherwise specified)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
V_i	Input Voltage	$V_o = 12\text{V}$ $I_o = 50$ to 420mA	38	48	60	V
I_i	Input Current	$V_i = 38$ to 60V $I_o = 420\text{mA}$			500	mA
I_{ir}	Input Reflected Current	$V_i = 48\text{V}$ $V_o = 12\text{V}$ $I_o = 420\text{mA}$		25	40	mApp
V_o	Output Voltage	$V_i = 38$ to 60V $I_o = 50$ to 420mA	11.5	12	12.5	V
V_{or}	Output Ripple Voltage	$V_i = 48\text{V}$ $I_o = 420\text{mA}$ BW = 5Hz to 20MHz		50	100	mVpp
δV_{OL}	Line Regulation	$V_i = 38$ to 60V $I_o = 420\text{mA}$		1	2	mV/V
δV_{OO}	Load Regulation	$V_i = 48\text{V}$ $I_o = 50$ to 420mA		100	150	mV/A
I_o	Output Current	$V_i = 38$ to 60V $V_o = 12\text{V}$	50		420	mA
I_{osc}	Output Short-circuit Current	$V_i = 48\text{V}$			1.8	A
V_{is}	Isolation Voltage		500			VDC
f_s	Switching Frequency	$V_i = 38$ to 60V $I_o = 50$ to 420mA	30		200	kHz
η	Efficiency	$V_i = 48\text{V}$ $I_o = 420\text{mA}$	78	80		%
T_{op}	Operating Ambient Temperature Range	Still air	0		+60	$^\circ\text{C}$
T_{op}	Operating Ambient Temperature Range	Forced ventilation, air speed = 100 LFM	0		+70	$^\circ\text{C}$
T_{stg}	Storage Temperature Range		-40		+85	$^\circ\text{C}$

CONNECTION DIAGRAM AND MECHANICAL DATA



SAFETY APPROVALS

The converter is agency certified to the following safety requirements:

Agency	Requirements	File Number
UL	UL-STD-1950	E141284
CSA	CSA-STD-C22.2 No. 234	LR 99794-3
TUV	EN 60950 DIN VDE 0805	R 9172410

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