

## 1 W TRIPLE OUTPUT DC-DC CONVERTER

Type	$V_i$	$V_o$	$I_o$
GS1T5-5D15	5 V	+ 5 V	+ 20 mA
		+ 15 V	+ 15 mA
		- 15 V	- 15 mA



### DESCRIPTION

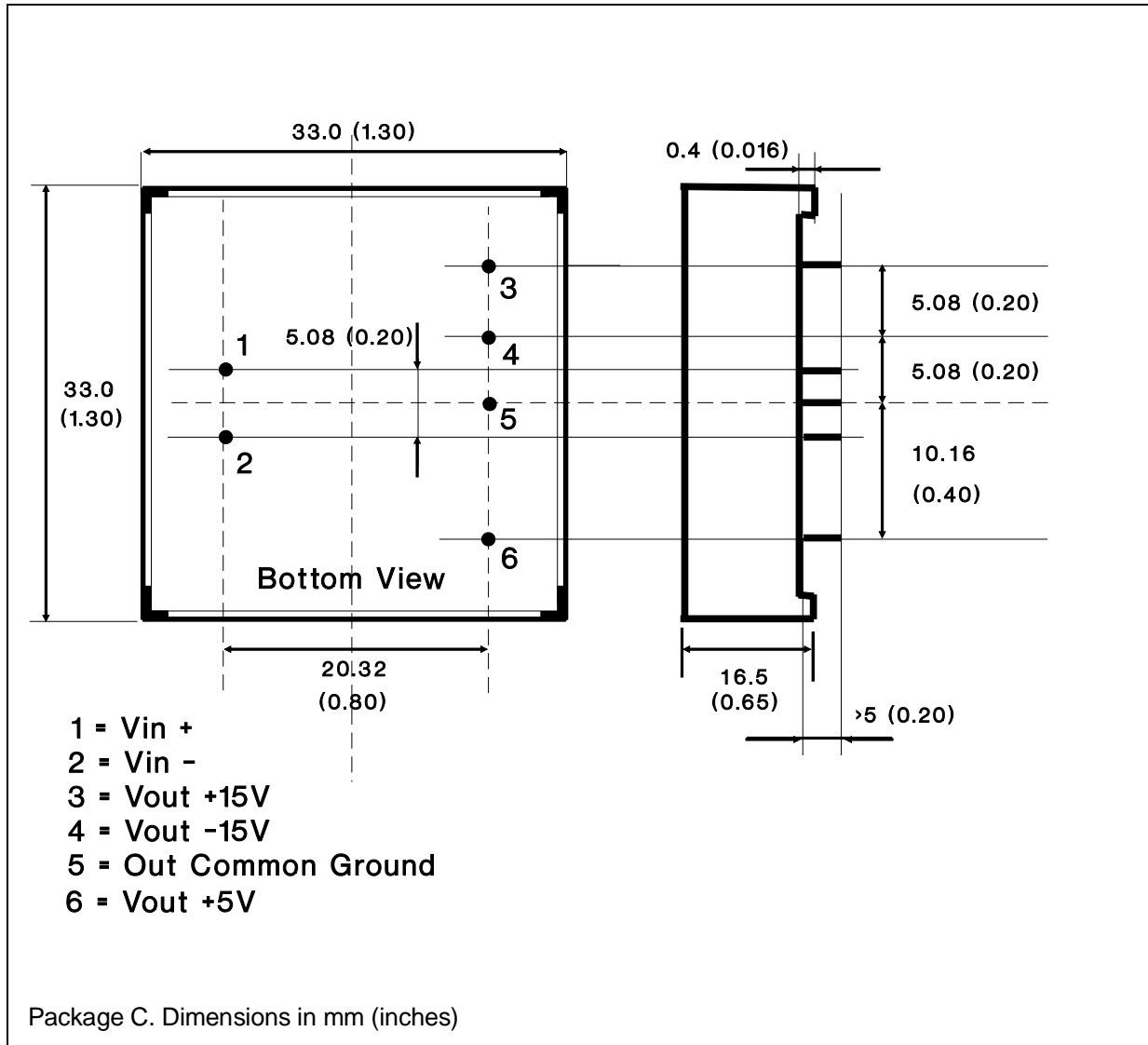
The GS1T5-5D15 is a 0.6W DC-DC converter designed to provide an isolated 5V/20mA, +15V/15mA and -15V/15mA power source.

The module operates from a 5V input source and offers 2500V<sub>DC</sub> isolation.

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

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
$V_i$	Input Voltage	$V_{o1} = +5V$ $V_{o2} = +15V$ $V_{o3} = -15V$ $I_{o1} = 3 \text{ to } 20\text{mA}$ $I_{o2} = 5 \text{ to } 15\text{mA}$ $I_{o3} = -5 \text{ to } -15\text{mA}$	4.7	5.0	5.3	V
$I_{ir}$	Input Reflected Current	$V_i = 4.7 \text{ to } 5.3V$ Full Load			10	mApp
$V_{o1}$	Output Voltage 1	$V_i = 4.7 \text{ to } 5.3V$ $I_{o1} = 3 \text{ to } 20\text{mA}$	4.75	5.00	5.25	V
$V_{o2}$	Output Voltage 2	$V_i = 4.7 \text{ to } 5.3V$ $I_{o2} = 5 \text{ to } 15\text{mA}$	14.25	15.00	15.75	V
$V_{o3}$	Output Voltage 3	$V_i = 4.7 \text{ to } 5.3V$ $I_{o3} = -5 \text{ to } -15\text{mA}$	-14.25	-15.00	-15.75	V
$I_{o1}$	Output Current 1	$V_i = 4.7 \text{ to } 5.3V$ $V_{o1} = 5V$	3		20	mA
$I_{o2}$	Output Current 2	$V_i = 4.7 \text{ to } 5.3V$ $V_{o2} = +15V$	5		15	mA
$I_{o3}$	Output Current 3	$V_i = 4.7 \text{ to } 5.3V$ $V_{o3} = -15V$	-5		-15	mA
$V_{or1}$	Output Ripple Voltage 1	$V_i = 4.7 \text{ to } 5.3V$ $I_{o1} = 20\text{mA}$			30	mVpp
$V_{or2}$	Output Ripple Voltage 2	$V_i = 4.7 \text{ to } 5.3V$ $I_{o2} = 15\text{mA}$			70	mVpp
$V_{or3}$	Output Ripple Voltage 3	$V_i = 4.7 \text{ to } 5.3V$ $I_{o3} = -15\text{mA}$			70	mVpp
$V_{is}$	Isolation voltage		2500			Vdc
$\eta$	Efficiency	$V_i = 5V$ Full Load	68	73		%
$f_s$	Switching Frequency	$V_i = 5V$ Full Load		150		kHz
$T_{op}$	Operating Ambient Temperature Range		0		+80	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range		-40		+85	$^\circ\text{C}$

CONNECTION DIAGRAM AND MECHANICAL DATA



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