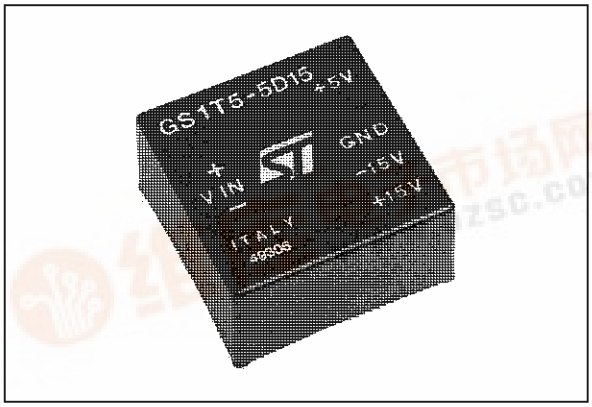
SGS-THOMSON MICROELECTRONICS

GS1T5-5D15

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

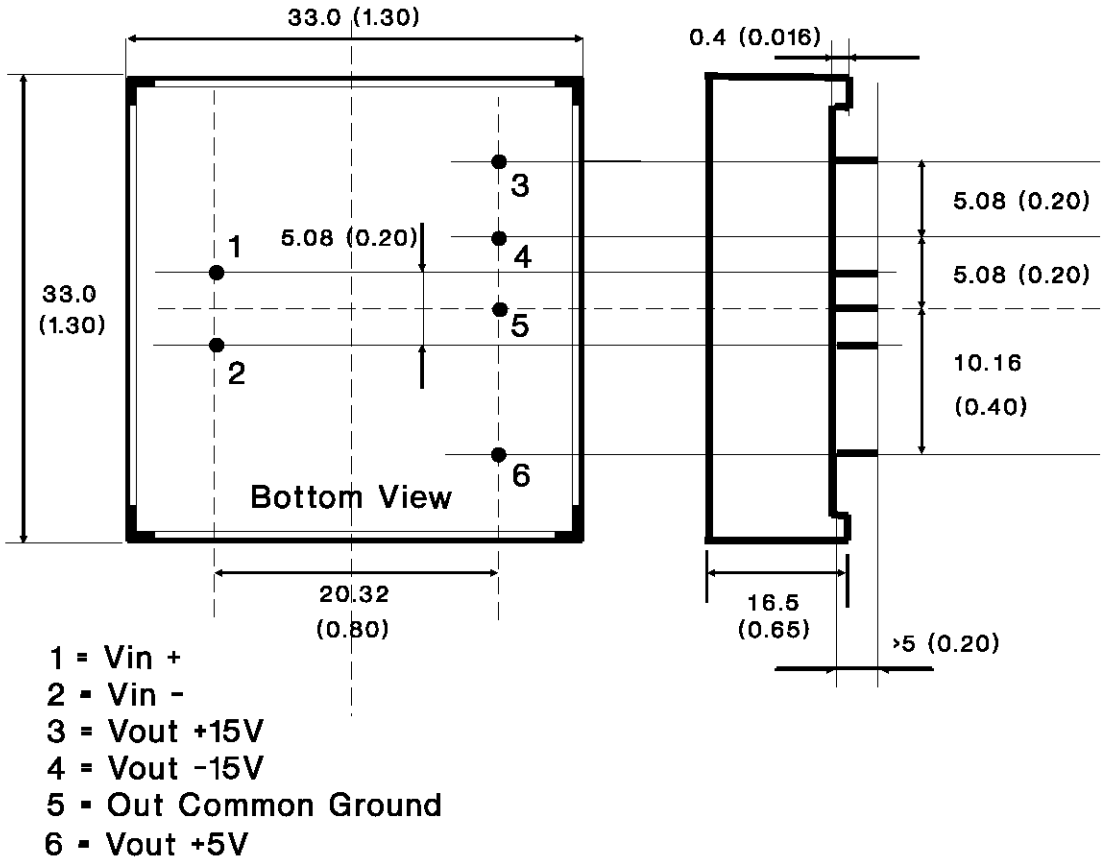
The GS1T5-5D15 is a 0.6W DC-DC converter designed to provide an isolated 5V/20mA, +15V/15mA and -15V/15mA power source.

The module operates from a 5V input source and offers 2500V_{DC} isolation.

ELECTRICAL CHARACTERISTICS ($T_{amb.}$= 25° C unless otherwise specified)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
V_i	Input Voltage	V_{o1} = +5V I_{o1} = 3 to 20mA V_{o2} = +15V I_{o2} = 5 to 15mA V_{o3} = – 15V I_{o2} = – 5 to – 15mA	4.7	5.0	5.3	V
I_{ir}	Input Reflected Current	V_i = 4.7 to 5.3V Full Load			10	mApp
V_{o1}	Output Voltage 1	V_i = 4.7 to 5.3V I_{o1} = 3 to 20mA	4.75	5.00	5.25	V
V_{o2}	Output Voltage 2	V_i = 4.7 to 5.3V I_{o2} = 5 to 15mA	14.25	15.00	15.75	V
V_{o3}	Output Voltage 3	V_i = 4.7 to 5.3V I_{o3} = – 5 to – 15mA	– 14.25	– 15.00	– 15.75	V
I_{o1}	Output Current 1	V_i = 4.7 to 5.3V V_{o1} = 5V	3		20	mA
I_{o2}	Output Current 2	V_i = 4.7 to 5.3V V_{o2} = +15V	5		15	mA
I_{o3}	Output Current 3	V_i = 4.7 to 5.3V V_{o3} = – 15V	– 5		– 15	mA
V_{or1}	Output Ripple Voltage 1	V_i= 4.7 to 5.3V I_{o1}= 20mA			30	mVpp
V_{or2}	Output Ripple Voltage 2	V_i = 4.7 to 5.3V I_{o2} = 15mA			70	mVpp
V_{or3}	Output Ripple Voltage 3	V_i = 4.7 to 5.3V I_{o3} = – 15mA			70	mVpp
V_{is}	Isolation voltage		2500			Vdc
η	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	°C
T_{stg}	Storage Temperature Range		– 40		+85	°C

CONNECTION DIAGRAM AND MECHANICAL DATA



Package C. Dimensions in mm (inches)