

## 15W DC-DC CONVERTER

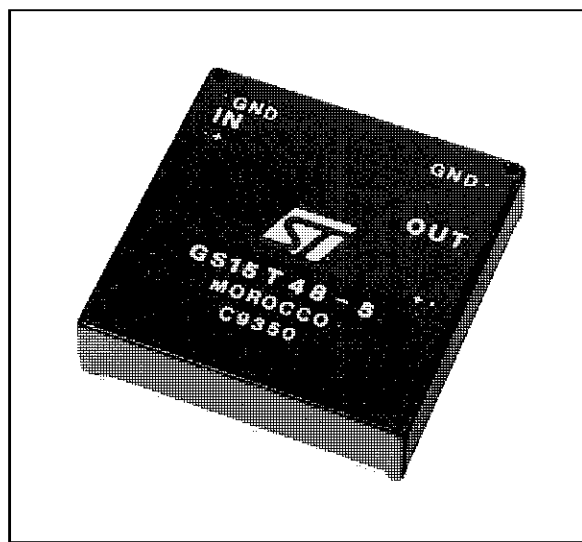
Type	V <sub>in</sub>	V <sub>out</sub>	I <sub>out</sub>
GS15T48-5	40 to 60 V	5 V	3 A

### DESCRIPTION

The GS15T48-5 is a 15W DC-DC converter designed to provide a 5V/3A isolated output from a 48V input in a metal package.

High frequency forward switching configuration ensures high efficiency (80% typ.); input filter minimizes reflected input current and continuous short-circuit protection is provided.

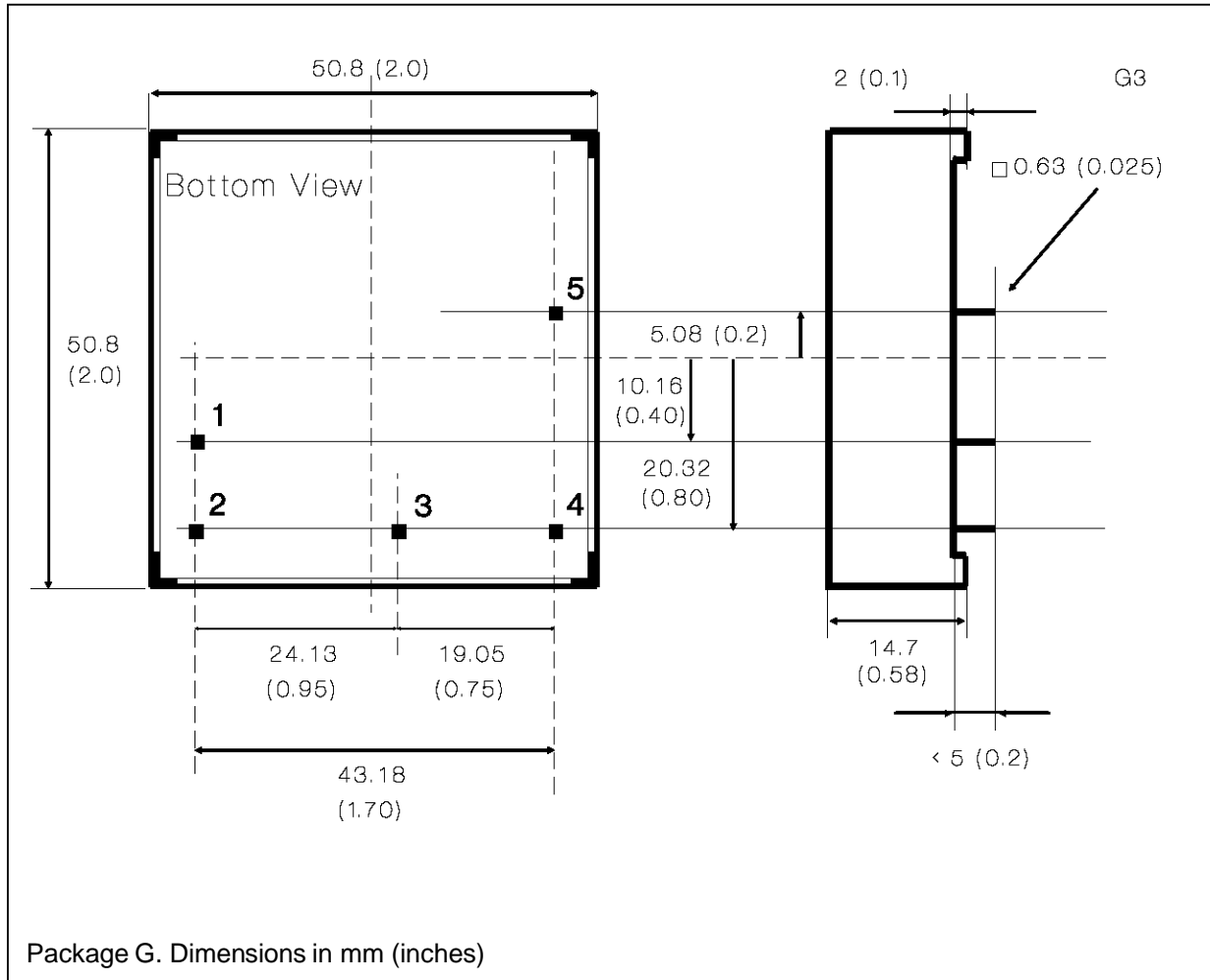
The integral heatsink allows a large power handling capability and it features also an effective shielding to minimize EMI.



### ELECTRICAL CHARACTERISTICS (T<sub>amb</sub> = 25°C unless otherwise specified)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
V <sub>i</sub>	Input Voltage	V <sub>o</sub> = 5V I <sub>o</sub> = 0 to 3A	40	48	60	V
I <sub>i</sub>	Input Current	V <sub>i</sub> = 48V I <sub>o</sub> = 3A		400		mA
I <sub>ir</sub>	Input Reflected Current	V <sub>i</sub> = 48V V <sub>o</sub> = 5V I <sub>o</sub> = 3A		50	80	mApp
I <sub>iq</sub>	Input Quiescent Current	V <sub>i</sub> = 48V V <sub>o</sub> = 5V I <sub>o</sub> = 0A		20		mA
V <sub>o</sub>	Output Voltage	V <sub>i</sub> = 40 to 60V I <sub>o</sub> = 0 to 3A	4.75	5	5.25	V
ΔV <sub>o</sub>	Line Regulation	V <sub>i</sub> = 40 to 60V I <sub>o</sub> = 3A		10	20	mV
ΔV <sub>o</sub>	Load Regulation	V <sub>i</sub> = 48V I <sub>o</sub> = 0 to 3A		10	20	mV
V <sub>or</sub>	Output Ripple Voltage	V <sub>i</sub> = 48V I <sub>o</sub> = 3A		20	50	mVpp
I <sub>o</sub>	Output Current	V <sub>i</sub> = 40 to 60V	0		3	A
I <sub>osc</sub>	Output Short-circuit Current	V <sub>i</sub> = 48V		5	6	A
V <sub>is</sub>	Isolation Voltage		750			Vdc
f <sub>s</sub>	Switching Frequency	V <sub>i</sub> = 40 to 60V I <sub>o</sub> = 0 to 3A		250		kHz
η	Efficiency	V <sub>i</sub> = 48V I <sub>o</sub> = 3A		80		%
R <sub>thc</sub>	Thermal Resistance Case to Ambient	T <sub>amb</sub> = 25°C V <sub>i</sub> = 48V I <sub>o</sub> = 3A		8		°C/W
T <sub>cmax</sub>	Maximum Case Temperature				+85	°C
T <sub>stg</sub>	Storage Temperature Range		-40		+105	°C

CONNECTION DIAGRAM AND MECHANICAL DATA



PIN DESCRIPTION

Pin	Function	Description
1	+ Input	DC input voltage (48V nom.)
2	- Input	Return for input voltage
3	Case	Case connection
4	- Output	Negative isolated output voltage
5	+ Output	Positive isolated output voltage

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