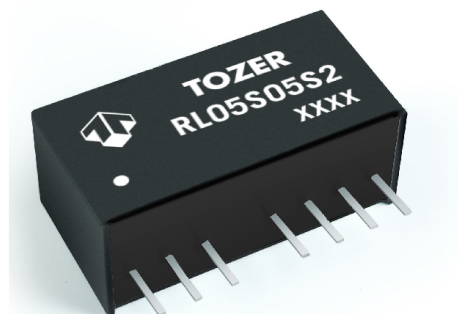


ISOLATED 2W REGULATED OUTPUT DC/DC CONVERTERS
FEATURE

- RoHS compliant
- High efficiency to 83%
- 2:1 wide range voltage input
- Low noise
- No electrolytic capacitors
- Fully encapsulated
- 1kV input to output isolation
- Power density 0.90W/cm³
- Operating temperature range -40 °C to 85 °C
- 0.75% regulation
- Continuous short circuit protection with current foldback



Order Code	Input Voltage(Vdc)	Input Current(mA)		Output Voltage(Vdc)	Output Current(mA)	%Eff. (Typ)	Cap. Load max.(uF)
		0% Load	100% Load				
RL05S05S2	4.5-9(2:1)	65	604	5	400	66.3	330
RL05S09S2	4.5-9(2:1)	65	314	9	222	70.7	330
RL05S12S2	4.5-9(2:1)	65	236	12	167	70.9	330
RL05S15S2	4.5-9(2:1)	65	183	15	134	73.3	330
RL12S05S2	9-18(2:1)	32	550	5	400	72.8	330
RL12S09S2	9-18(2:1)	32	280	9	222	79.3	330
RL12S12S2	9-18(2:1)	32	208	12	167	80.2	330
RL12S15S2	9-18(2:1)	32	165	15	134	81.2	330
RL24S05S2	18-36(2:1)	20	538	5	400	74.3	330
RL24S09S2	18-36(2:1)	20	273	9	222	81.2	330
RL24S12S2	18-36(2:1)	20	202	12	167	82.7	330
RL24S15S2	18-36(2:1)	20	161	15	134	83.3	330
RL48S05S2	36-75(2:1)	11	549	5	400	72.8	330
RL48S09S2	36-75(2:1)	11	278	9	222	79.9	330
RL48S12S2	36-75(2:1)	11	206	12	167	81	330
RL48S15S2	36-75(2:1)	11	164	15	134	81.8	330

ISOLATED 2W REGULATED OUTPUT DC/DC CONVERTERS
INPUT CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Input Voltage range	5V input types	4.5	5	9	Vdc
	12V input types	9	12	18	
	24V input types	18	24	36	
	48V input types	36	48	72	
Reflected ripple current	5V input types			250	mA p-p
	12V input types			150	
	24V input types		300	380	
	48V input types		140	170	

OUTPUT CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Voltage set point accuracy	5/12V input types with external input/output capacitors		±1	±3	%
	24/48V input types with external input/output capacitors		±2	±5	
Line regulation	5/12V input types, low line to high line with external input/output capacitors		0.05	0.5	%
	24/48V input types, low line to high line with external input/output capacitors		0.04	0.4	
Load regulation	Minimum load to rated load with external input/output capacitors		0.2	0.75	%
Ripple	BW=20Hz to 300KHz with external input/output capacitors		5	10	mVrms
Noise	5V input types, BW=DC to 100MHz with external input/output capacitors		50	100	mV p-p
	12V input types, BW=DC to 100MHz with external input/output capacitors		110	170	
	24/48V input types, BW=DC to 100MHz with external input/output capacitors		50	100	
Shutdown power	+Vin nominal		2.8		mW

GENERAL CHARACTERISTICS

Isolation Voltage	1000VDC min.
Isolation Resistance	10 ⁸ Ohms min.
Isolation Capacitance	15pF typ.
Control pin (CTRL) input current	6-15 mA
Switching frequency	All input types 100-600 kHz
Operation Ambient Temperature Range	-40°C ~85°C
Derating	See Derating Curve
Case Temperature	110°C max
Cooling	Natural Convection
Storage Temperature Range	-50°C to +130°C
Humidity	95%RH max. Non condensing
MTBF	MIL-STD-217F TBD
Dimensions	21.8x9.2x11.1mm (0.86x0.36x0.44 inches)
Case Material	Non-Conductive Black Plastic

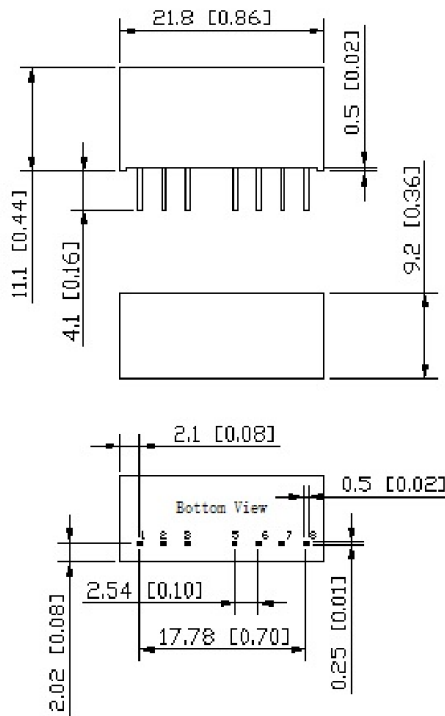
ISOLATED 2W REGULATED OUTPUT DC/DC CONVERTERS

Weight

4.5g

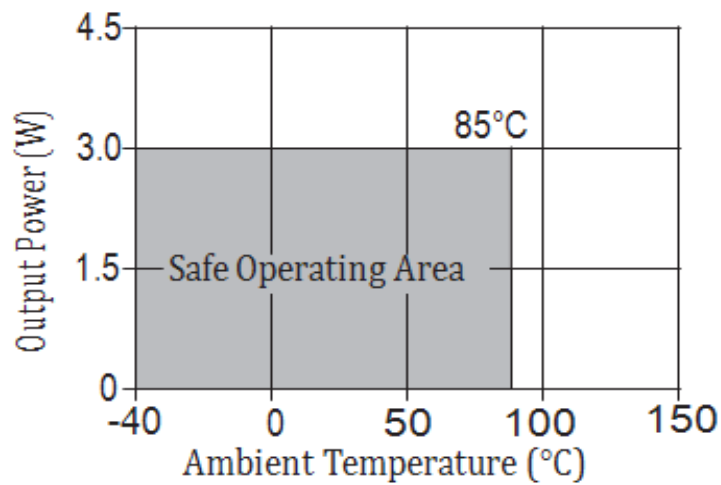
TECHNICAL DIMENSIONS & PIN CONNECTION

All Dimensions In Millimeters [Inches]
 Tolerance Millimeters: X=±1.0, XX=±.25
 Inches: XX=±.04, XXX=±.010



PIN CONNECTION	
Pin	Function
1	-VIN
2	+VIN
3	CTRL
5	NA
6	+VOUT
7	-VOUT
8	Cs

RL-2 Series Derating Curve



ISOLATED 2W REGULATED OUTPUT DC/DC CONVERTERS

NOTE

1. Measured From High Line to Low Line.
2. Measured From Full Load to min. Load.
3. Maximum case temperature under any operating condition should Not be exceeded 85°C.
4. The output ripple and noise is measured with 10uF tantalum and 1uF Ceramic capacitor across output.
5. All Specifications Typical At Nominal Line, Full Load, and 25°C Unless Otherwise Noted.
6. The minimum load to meet datasheet specification is 10% of the full rated load across the specified input voltage range. Lower than 10% minimum loading will result in an increase in output voltage, which may rise to typically double the specified output voltage if the output load falls to less than 5%.