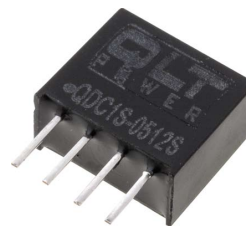


## QLT POWER QDC2S-xxxxS SERIES 2W DC-DC CONVERTER

- HIGH POWER DENSITY
- 4 PIN SIL PACKAGE STYLE
- SINGLE OUTPUT VOLTAGE
- INDUSTRIAL STANDARD PIN-OUT
- NO HEAT SINK REQUIRED
- 1K VDC ISOLATION
- FIXED INPUT VOLTAGE
- PCB MOUNTING



### ELECTRICAL SPECIFICATIONS:

(All specifications tested typically @ 25°C, humidity<75%, nominal input and rated output unless otherwise noted.)

### OUTPUT SPECIFICATIONS

Items:	Testing condition	Min	Typ	Max
Output accuracy:	At full load and nominal Vin			±5%
Line regulation:	Input voltage from low to full load			
Load regulation:	From 20% to full load		±8%	
Ripple and noise:		20mVp-p		100 mV p-p
Temperature drift:				±0.02 %/°C
Minimum load				10%
Switching frequency			80KHz	
Overload protection	% of FL at nominal input		160	
Short circuit protection			Momentary	

### INPUT SPECIFICATIONS

Items:	Testing condition	Min	Typ	Max
Input voltage range	5VDC nominal input	4.5-5.5VDC		
	24VDC nominal input	21.6-26.4VDC		
	12VDC nominal input	10.8-13.2VDC		
Input filter		Pi		

# QLT POWER QDC2S-xxxxS SERIES 2W DC-DC CONVERTER

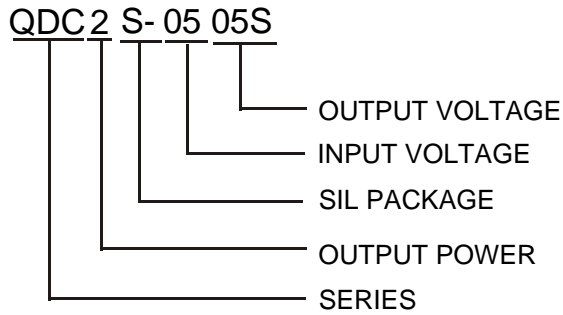
COMMON SPECIFICATIONS				
Items		Min	Typ.	Max
Operating temperature range		-40°C		+85°C
Storage temperature range		-55°C		+125°C
Humidity				<90%
Cooling	Free Air Convection			
Isolation voltage (VDC)	Input to Output		1,000	
Isolation resistance (ohms)			10 <sup>9</sup>	
Isolation capacitance (pF)				60
Efficiency (%)	See Product List	70		85
Case material	Non-conductive black plastic			
Potting material	Epoxy Resin UL94-V0			
Packing material	Tube			
Dimension (mm)	11.70*7.2*10			
Weight (g)	1.8			
MTBF (Hrs)	>3,500,000			
Power (W)	2			

PRODUCT LIST								
Part Number	Input Voltage (VDC)			Output		Efficiency (%, Typ.)	Package	Capacitor Load Max (uF)
	Range	Nominal	Max.	Current (mA)max	Voltage (VDC)			
QDC2S-0503S	4.5-5.5	5	5.5	606	3.3	78	SIL	
QDC2S-0505S	4.5-5.5	5	5.5	400	5	75	SIL	
QDC2S-0512S	4.5-5.5	5	5.5	167	12	80	SIL	
QDC2S-1205S	10.8-13.2	12	13.2	400	5	75	SIL	
QDC2S-1212S	10.8-13.2	12	13.2	167	12	80	SIL	
QDC2S-1215S	10.8-13.2	24	13.2	133	15	78	SIL	
QDC2S-2405S	21.6-26.4	24	26.4	400	5	75	SIL	
QDC2S-2412S	21.6-26.4	24	26.4	167	12	82	SIL	
QDC2S-2415S	21.6-26.4	24	26.4	133	15	85	SIL	

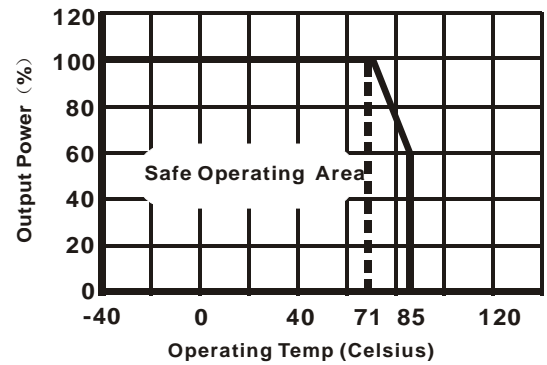
- Note:** (1) A minimum 10% load is required on the output to meet the published specifications. Even though working at no load condition will not damage the device, it is not adoptable.
- (2) If the output power needed is smaller than rated, please connect a proper value resistor at output end in parallel to increase the load or contact us for a lower power product.
- (3) For lower noise and ripple, please connect a "LC" filter at the output. The capacitance must be at proper value in case of start-up problems.

# QLT POWER QDC2S-xxxxS SERIES 2W DC-DC CONVERTER

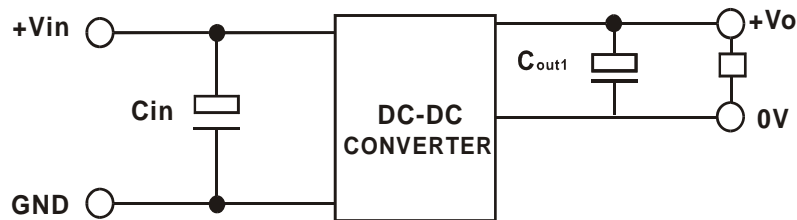
## NOMENCLATURE



## TEMPERATURE DERATING GRAPH

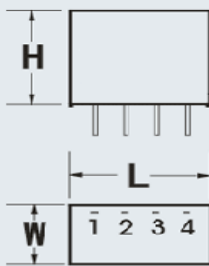


## TYPICAL CONNECTION



## OUTLINE DIMENSION

SIZE SIL(LxWxH)  
2W 11.7x6.0x10



PKG	Vin	GND	0V	+Vo
SIL	2	1	3	4

## PINS DESCRIPTION

Pin	Connection	Connection
1	GND	Input
2	Vin	Omitted
3	0V	Omitted
4	Vout	Input