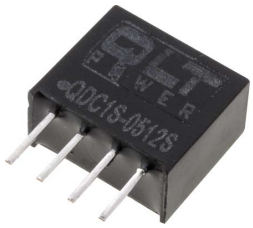
EN: This Datasheet/Document is presented by the manufacturer.

Please visit our website for pricing and availability at www.hestore.hu.

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)			10^9	
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 LIDT								
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	
ODC2S-0512S	4.5-5.5	5	5.5	167	12	80	SIL	
ODC2S-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	

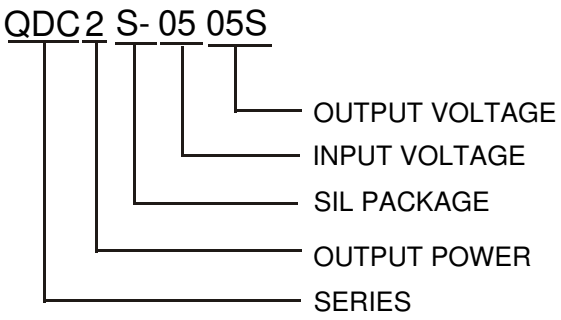
Note: (1) A minimum 10% load is required on the output to meet the published specifications. Even though working at no load condition will not damage the device, it is not adoptable.

(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.

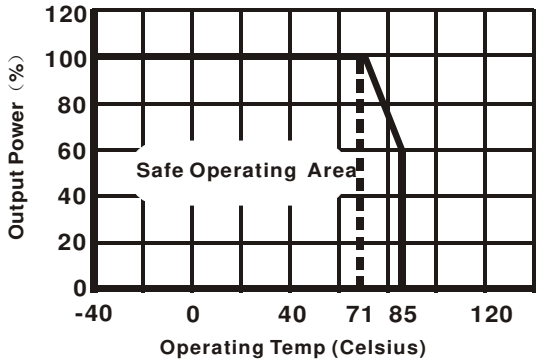
(3) For lower noise and ripple, please connect a “LC” filter at the output. The capacitance must be at proper value in case of start-up problems.

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

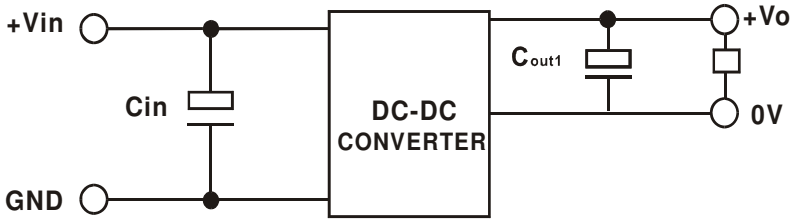
NOMENCLATURE



TEMPERATURE DERATING GRAPH

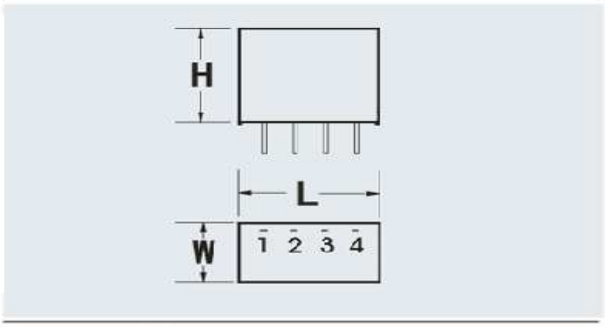


TYPICAL CONNECTION



OUTLINE DIMENSION

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



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

PINS DESCRIPTION

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