

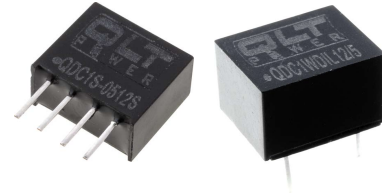
QLT POWET DC-DC CONVERTER

QDC1WDILxxxx, QDC1S-xxxxS

1KV ISOLATION, 1W OUTPUT, UNREGULATED, SIL 4 PACKAGE, DIL 8 PACKAGE, MTBF>1M HOURS

Available Inputs:
5, 12, 15 and 24 VDC

Available Outputs:
3.3, 5, 9, 12, 15, 18 and 24 VDC



Electrical Specifications

(Typical at + 25° C, nominal input voltage, rated output current unless otherwise specified)

Input Specifications

Voltage range +/- 10 %
Filter Capacitors

Isolation Specifications

Rated voltage 1000 VDC
Leakage current 1 mA
Resistance 10⁹ Ohm
Capacitance 60 pF type.

Output Specifications

Voltage accuracy +/- 5 %, max.
Ripple and noise (at 20 MHz BW) 100 mV p-p, max.
Short circuit protection Momentary
Line voltage regulation +/- 1,2 % / 1,0 % of Vin
Load voltage regulation +/- 8 %, load = 20 ~ 100 %
Temperature coefficient +/- 0,02 % / °C

General Specifications

Efficiency 75 % to 85 %
Switching frequency 80 KHz, typ.

Environmental Specifications

Operating temperature (ambient) - 40° C to + 85° C
Storage temperature - 55° C to + 125° C
Derating See graph
Humidity Up to 90 %, non condensing
Cooling Free air convection

Physical Characteristics

Dimensions DIL 12,70 x 10,16 x 6,85 mm
0,50 x 0,40 x 0,27 inches
Dimensions SIL 11,68 x 6,00 x 10,16 mm
0,46 x 0,24 x 0,40 inches

Weight 1,8 g
Case material Non conductive black plastic

Examples of Part Numbers

PART NO.	INPUT VOLTAGE (VDC)	INPUT CURRENT NO LOAD	INPUT CURRENT FULL LOAD	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (max. mA)	EFFICIENCY FULL LOAD (% TYPE.)	PACKAGE
QDC1WDIL5/3.3	5	14	363	3.3	303	72	DIL 8
QDC1WDIL5/5	5	16	266	5	200	75	
QDC1WDIL5/12	5	18	254	12	84	70	
QDC1WDIL5/15	5	25	267	15	67	75	
QDC1WDIL12/5	12	11	119	5	200	70	
QDC1WDIL12/12	12	10	104	12	84	80	
QDC1WDIL12/15	12	15	107	15	68	78	
QDC1WDIL24/5	24	5	55	5	200	75	
QDC1WDIL24/12	24	7	54	12	84	77	
QDC1WDIL24/15	24	8	55	15	76	76	

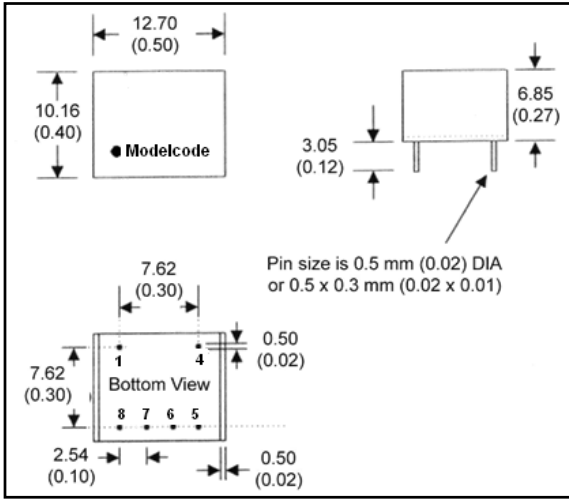
PART NO.	INPUT VOLTAGE (VDC)	INPUT CURRENT NO LOAD	INPUT CURRENT FULL LOAD	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (max. mA)	EFFICIENCY FULL LOAD (% TYPE.)	PACKAGE
QDC1S-0503S	5	14	363	3.3	303	72	SIL4
QDC1S-0505S	5	16	266	5	200	75	
QDC1S-0512S	5	18	254	12	84	70	
QDC1S-0524S	5	24	263	24	42	76	
QDC1S-1205S	12	11	119	5	200	70	
QDC1S-1212S	12	10	104	12	84	80	
QDC1S-1215S	12	15	107	15	68	78	
QDC1S-2405S	24	5	55	5	200	75	
QDC1S-2412S	24	7	54	12	84	77	
QDC1S-2415S	24	8	55	15	76	76	

QDC1WDILxxxx, QDC1S-xxxxS

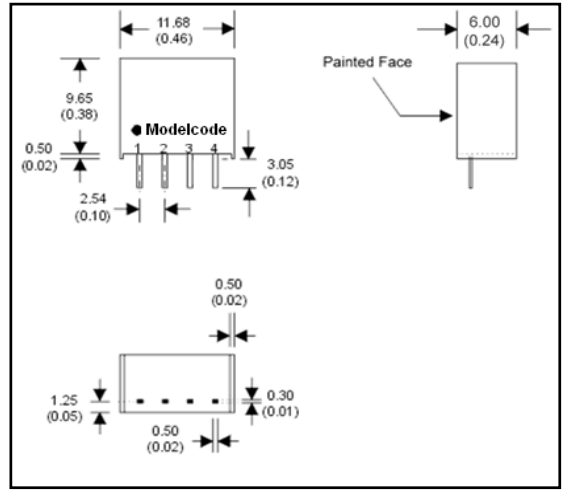
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Dimensions

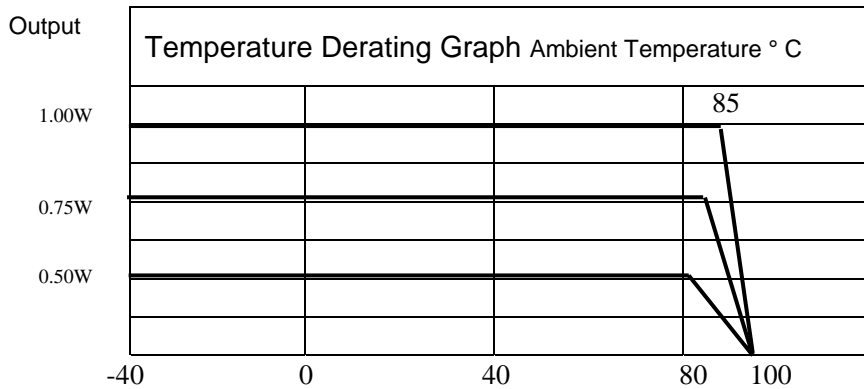
DIL 8



SIL 4



Derating Graph and Pinning



Pin DIL8	Connection		
1	-	V _{in}	Input
2			Omitted
3			Omitted
4	+	V _{in}	Input
5	+	V _{out}	Output
6			Omitted
7	0	V _{out}	Output
8			Omitted

Pin SIL4	Connection		
1	-	V _{in}	Input
2	+	V _{in}	Input
3	-	V _{out}	Output
4	+	V _{out}	Output