

# D3

MAX. Power 3W Isolated DC-DC Converter

## D3 Series Encapsulated PCB Type DC-DC Converter



### Features

- Encapsulated Compact Size
- High Efficiency
- Isolated Input - Output
- 300kHz fixed frequency and Current mode Control
- Low output Ripple & Noise
- Built-in over current protection circuit
- Wide 2 : 1 input range
- Safety : Meets UL/CE Standard (Approvals pending)
- RoHS compatible design
- 3-years warranty

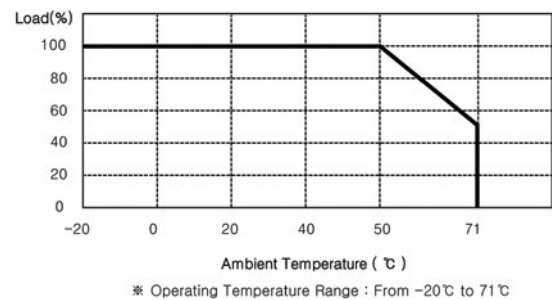
### Environment

- Operating Temperature : -20°C ~ 71°C
- Operating Humidity : 20% ~ 90% RH (Non condensing)
- Storage Temperature : -40°C ~ 105°C
- Cooling : Free-Air Convection
- MTBF :  $7.2 \times 10^5$  hrs

### Applications

- Data and telecommunication
- Datacommunication electronic equipments
- FA control

### Derating Curve



### General Specifications

Input	Input Voltage Range	5V(4.5~7.2), 12V(8~16.5), 24V(18~32), 48V(32~63)
	Efficiency	66% ~ 81%
Output	Output Voltage	3.3V, 5V, 9V, 12V, 15V, 24V, $\pm 5V$ , $\pm 12V$ , $\pm 15V$
	Line Regulation	$\pm 0.5\%$
	Load Regulation	$\pm 1.0\%$
	Output Voltage Accuracy	$\pm 2.0\%$
	Output Voltage adj. Range	None
Protection Circuit	Over Current Protection	Works at over 105% of rating and recovers automatically
	Over Voltage Protection	None
Electrically Isolated	High Pot	Input / Output, Input / Case, Output / Case : AC500V 1minute
	Isolation	Input / Output, Input / Case, Output / Case : DC500V 100M $\Omega$

## DS3 Series Ordering Information (Single Output)

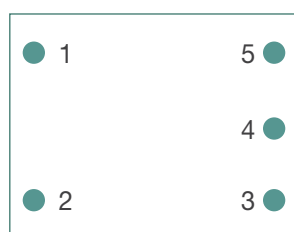
MODEL		DS3-05-3R3	DS3-05-05	DS3-05-09	DS3-05-12	DS3-05-15	DS3-05-24	DS3-12-3R3	DS3-12-05	DS3-12-09	DS3-12-12	DS3-12-15	DS3-12-24
Input Voltage (V)		5 (4.5 ~ 7.2)						12 (8 ~ 16.5)					
Output	Vout (V)	3.3	5	9	12	15	24	3.3	5	9	12	15	24
	Iout (A)	0.7	0.6	0.34	0.25	0.2	0.125	0.7	0.6	0.34	0.25	0.2	0.125
Maximum Power (W)		2.31	3	3.06	3	3	3	2.31	3	3.06	3	3	3
Ripple & Noise (mVp-p)		50	50	100	120	150	200	50	50	100	120	150	200
Efficiency Typ. (%)		66	69	71	71	71	71	78	81	81	81	81	81

MODEL		DS3-24-3R3	DS3-24-05	DS3-24-09	DS3-24-12	DS3-24-15	DS3-24-24	DS3-48-3R3	DS3-48-05	DS3-48-09	DS3-48-12	DS3-48-15	DS3-48-24
Input Voltage (V)		24 (18 ~ 32)						48 (32 ~ 63)					
Output	Vout (V)	3.3	5	9	12	15	24	3.3	5	9	12	15	24
	Iout (A)	0.7	0.6	0.34	0.25	0.2	0.125	0.7	0.6	0.34	0.25	0.2	0.125
Maximum Power (W)		2.31	3	3.06	3	3	3	2.31	3	3.06	3	3	3
Ripple & Noise (mVp-p)		50	50	100	120	150	200	50	50	100	120	150	200
Efficiency Typ. (%)		74	78	80	80	80	80	74	78	79	79	79	79

## DD3 Series Ordering Information (Dual Output)

MODEL		DD3-05-0505	DD3-05-1212	DD3-05-1515	DD3-12-0505	DD3-12-1212	DD3-12-1515	DD3-24-0505	DD3-24-1212	DD3-24-1515	DD3-48-0505	DD3-48-1212	DD3-48-1515
Input Voltage (V)		5 (4.5 ~ 7.2)			12 (8 ~ 16.5)			24 (18 ~ 32)			48 (32 ~ 63)		
Output	Vout (V)	±5	±12	±15	±5	±12	±15	±5	±12	±15	±5	±12	±15
	Iout (A)	0.3	0.125	0.1	0.3	0.125	0.1	0.3	0.125	0.1	0.3	0.125	0.1
Maximum Power (W)		3	3	3	3	3	3	3	3	3	3	3	3
Ripple & Noise (mVp-p)		50/50	120/120	150/150	50/50	120/120	150/150	50/50	120/120	150/150	50/50	120/120	150/150
Efficiency Typ. (%)		71	71	71	81	81	81	79	79	79	79	79	79

## Pin assignments



| Top View |

Pin No.	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	-Vout	-Vout
4	No Pin	COM
5	+Vout	+Vout

## Outline Dimensions : (Unit : mm (inch))

