

ISOLATED 0.25W SINGLE OUTPUT DC/DC CONVERTERS
FEATURE

- n RoHS compliant
- n Efficiency up to 76%
- n Rated power 0.25W
- n Power density up to 0.36W/cm³
- n UL94V-0 package material
- n Industry standard pin-out
- n 1kV input to output isolation
- n No electrolytic or tantalum capacitors
- n No external components required
- n No heatsink required



Order Code	Input Voltage(Vdc)	Input Current(mA)		Output Voltage(Vdc)	Output Current(mA)	%Eff. (Typ)	Cap. Load max.(uF)
		0% Load	100% Load				
UE03S05S0	3.3	45	108	5	50	70	47
UE05S05S0	5	40	71	5	50	70	47
UE05S09S0	5	40	67	9	28	75	22
UE05S12S0	5	40	67	12	21	75	22
UE05S15S0	5	40	64	15	16	75	22
UE12S05S0	12	18	30	5	50	70	47
UE12S09S0	12	18	28	9	28	75	22
UE12S12S0	12	18	28	12	21	75	22
UE12S15S0	12	18	27	15	16	75	22
UE05S05D0	5	40	71	5	50	70	47
UE05S09D0	5	40	67	9	28	75	22
UE05S12D0	5	40	67	12	21	75	22
UE05S15D0	5	40	64	15	16	75	22
UE12S05D0	12	18	30	5	50	70	47
UE12S09D0	12	18	28	9	28	75	22
UE12S12D0	12	18	28	12	21	75	22
UE12S15D0	12	18	27	15	16	75	22

*Add suffix 'P' for continue Short Circuit Protection, e.g, UE05S05D0P.

INPUT CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Input Voltage range	5V input types	4.5	5	5.5	Vdc
	12V input types	10.8	12	13.2	

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OUTPUT CHARACTERISTICS

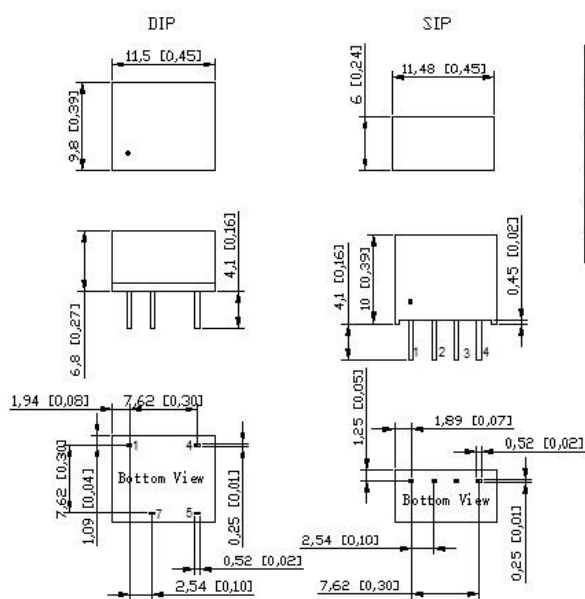
Parameter	Conditions	Min.	Typ.	Max.	Units
Rated Power	TA=-40°C to 120°C			0.25	W
Voltage Set Point Accuracy	See tolerance envelope				
Line regulation	High VIN to low VIN		1.0	1.2	%/%
Load regulation	10% Load to 100% Load		10	15	%

GENERAL CHARACTERISTICS

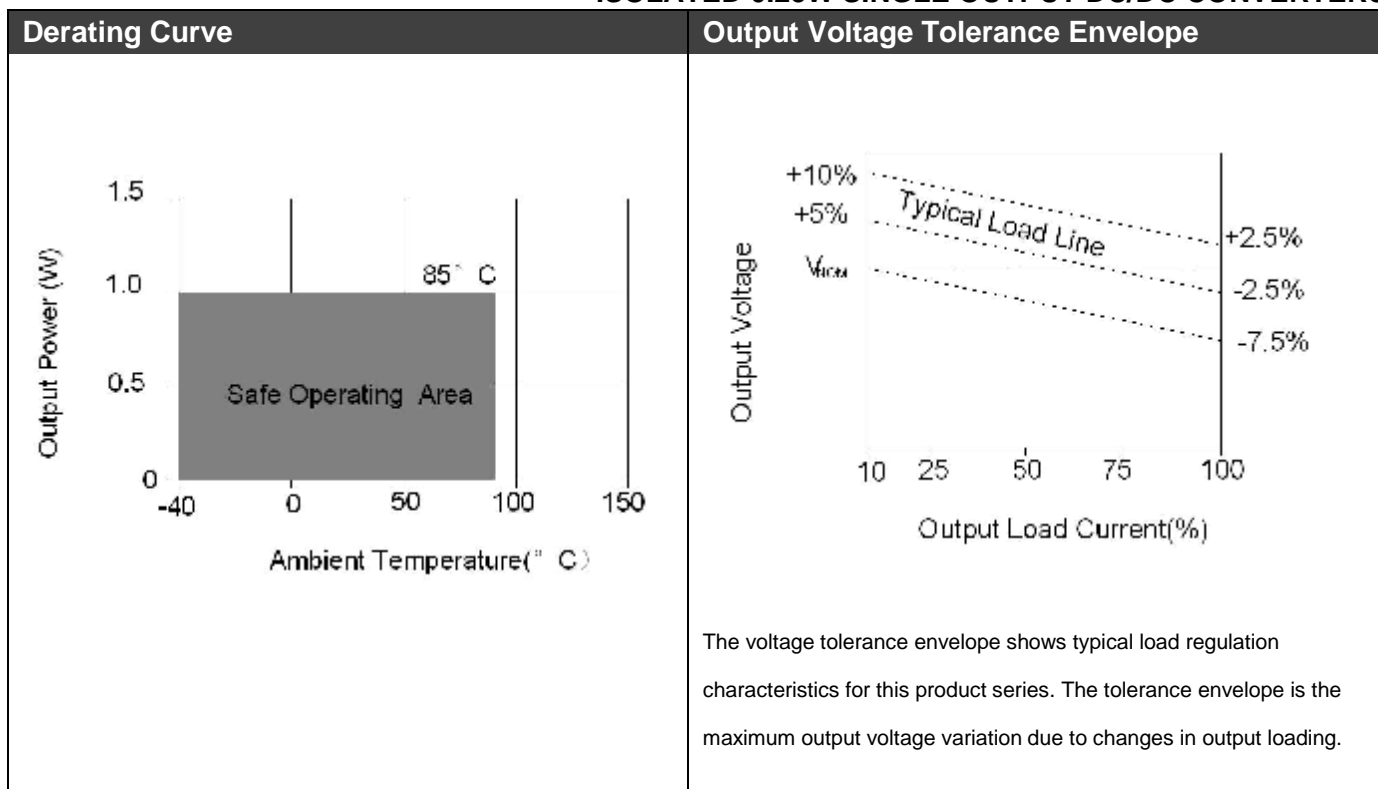
Isolation Voltage	1000VDC min.
Isolation Resistance	10 ⁸ Ohms min.
Isolation Capacitance	10pF typ.
Switching frequency	All output types 100kHz
Operation Ambient Temperature Range	-40°C ~70°C
Derating	See Derating Curve
Case Temperature	120°C max
Cooling	Natural Convection
Storage Temperature Range	-55°C to +130°C
Humidity	95%RH max. Non condensing
MTBF	MIL-STD-217F TBD
Dimensions	DIP 11.5x9.8x6.8mm (0.45x0.39x0.27 inches) SIP 11.5x6.0x10.0mm (0.45x0.24x0.39 inches)
Case Material	Non-Conductive Black Plastic
Weight	1.5 g

MECHANICAL DIMENSIONS & PIN CONNECTION

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



PIN CONNECTION			
SIP		DIP	
Pin	Function	Pin	Function
1	-VIN	1	-VIN
2	+VIN	4	+VIN
3	-VOUT	5	+VOUT
4	+VOUT	7	-VOUT

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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 120°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%.