



13DS1 SERIES

3000VDC SINGLE & DUAL OUTPUT 1 WATT DC-DC CONVERTER

FEATURES

- 22 PIN SMD PACKAGE.
- 3000VDC ISOLATION.
- UNREGULATED OUTPUT TYPES.
- UL 94V-0 PACKAGE MATERIAL.
- WIND TEMPERATURE PERFORMANCE AT FULL 1 WATT LOAD -40°C TO 85°C



GENERAL SPECIFICATIONS

- ISOLATION RESISTANCE : 1000MΩ MIN @1000VDC
- SWITCHING FREQUENCY : 115KHz TYP.
- OPERATING TEMPERATURE : -40 °C TO 85°C
- ISOLATION VOLTAGE : 3000VDC MIN
- RIPPLE AND NOISE : 75mVp-p MAX

ELECTRICAL SPECIFICATIONS

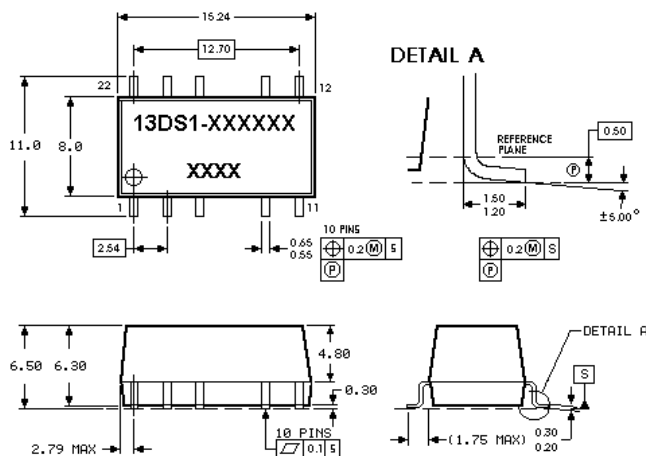
- INPUT VOLTAGE RANGE : ±10%
- OUTPUT VOLTAGE TOLERANCE : ±5%
- LINE REGULATION (10% TO 100% F.L.) : ±1.2%/1% OF Vin
- LOAD REGULATION (10% TO 100% F.L.) : 5V & 9V OUTPUT TYPES : 12% & 8.0% MAX
12V & 15V OUTPUT TYPES : 8.5% & 7.0% MAX

Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

PART NUMBER	NOMINAL OUTPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT AT RATED LOAD	RIPPLE AND NOISE	EFFICIENCY	ISOLATION CAPACITANCE
	(V)	(V)	(mA)	(mA)	(mVp-p)	(%)	(pF)
13DS1-05S05N	5	5	200	294	75	68	35
13DS1-05S12N	5	12	83	260	60	77	42
13DS1-05D05N	5	±5	±100	282	75	71	33
13DS1-05D09N	5	±9	±55	260	65	77	38
13DS1-05D12N	5	±12	±42	253	60	79	44
13DS1-05D15N	5	±15	±33	250	60	80	43
13DS1-12S05N	12	5	200	124	75	67	50
13DS1-12S12N	12	12	83	113	60	74	47
13DS1-12D05N	12	±5	±100	114	75	73	88
13DS1-12D09N	12	±9	±55	105	65	79	72
13DS1-12D12N	12	±12	±42	104	60	80	89
13DS1-12D15N	12	±15	±33	101	60	82	100

MARKINGS AND DIMENSIONS

PIN CONNECTION



PIN	SINGLE	DUAL
1	-IN	-IN
3	+IN	+IN
5	NC	NC
9	-OUT	COM
11	NC	-OUT
12	NC	NC
14	+OUT	+OUT
18	NC	NC
20	NC	NC
22	NC	NC

Dimensions: mm

Unless otherwise specified, all tolerances are ±0.13