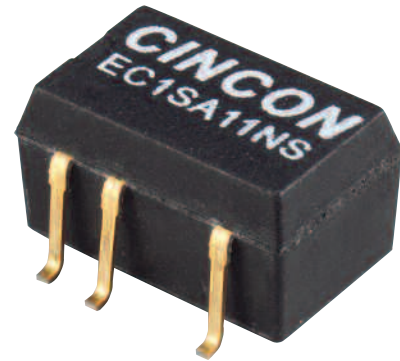


EC1 Series

1 WATT - DC/DC SINGLE & MULTIPLE OUTPUT

FEATURES

- Industry Standard SIP and SMD Packages
- Efficiency up to 83%
- 1000VDC Isolation
- Low Cost
- Unregulated Outputs
- Low Ripple and Noise
- No Tantalum Capacitors

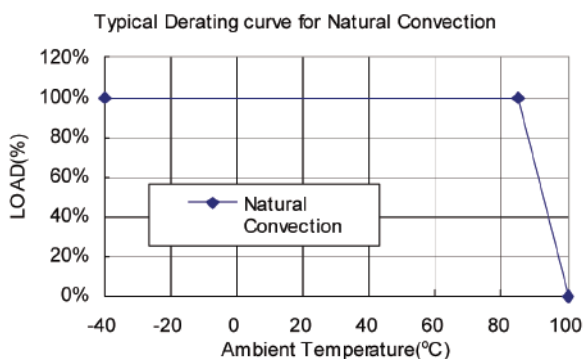


SPECIFICATIONS

INPUT		
DC input voltage range	±10%	
Input surge voltage	5V	9Vdc max
	12V	18Vdc max
	24V	30Vdc max
Input filter	Capacitive	
Isolation voltage	1000 VDC min	
Isolation resistance	10 ⁹ Ohms min	
Isolation capacitance	10pF typ	
OUTPUT		
Output voltage	See table	
Output current	See table	
Voltage accuracy	±3.0% max.	
Ripple and noise, 20MHz BW	75m - 100V p-p max, SIP model dependant 120mV p-p max, SMD model dependant	
Temperature coefficient	±0.05%/C max	
Short circuit protection	Momentary 1sec max	
Line regulation (Note1)	±1.2% max	
Load regulation (Note2)	±10% max	
Efficiency	See table	
Switching frequency	5&12V Input	90KHz typ
	24V Input	80KHz typ

ENVIRONMENTAL	
Operating ambient temperature range	40°C to +85°C
De-rating	See curve
Case temperature (Note4)	+100°C max
Cooling	Natural convection
Storage temperature range	-55°C to +125°C
Humidity	95% RH max. Non condensing
MTBF	MIL-STD-217F,GB 1.7Mhrs min
MECHANICAL	
Dimensions	1.6 x 6.0 x 10.2mm-5&12V input, EC1TA models 11.6 x 7.5 x 10.2mm-24V input EC1TA models 19.5 x 6.1 x 10.2mm-5&12V input EC1SA models 19.5 x 7.2 x 10.2mm-24V input EC1SA models 12.7 x 8.0 x 6.8mm-SMD models (Single) 15.24 x 8.0 x 6.8mm-SMD Models (Dual)
Weight	1.3-1.7g, EC1TA model dependant 1.8-2.7g, EC1SA model dependant
Case material	SIP models, Non-conductive black plastic SMD models, Epoxy molding compound.

TECHNICAL ILLUSTRATION



NOTE :

1. Line regulation is per 1.0% change in input voltage
2. Load regulation is for load change from 100% to 20%
3. The output noise is measured with 0.33uF ceramic capacitor.
4. Maximum case temperature under any operating condition should not be exceeded 100°C.
5. The EC1TA2XN input terminal need to parallel with 4.7uF ceramic Capacitor
6. Suffix "S" to the model number with SMD packages, 5&12Vin EC1SA models only.

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SELECTION TABLE

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.	CAPACITIVE LOAD MAX.
				NO LOAD	FULL LOAD		
EC1TA01N	5 VDC	5 VDC	200 mA	40 mA	253mA	79	220uF
EC1TA02N	5 VDC	12 VDC	84 mA	40 mA	255mA	79	220uF
EC1TA03N	5 VDC	15 VDC	67 mA	40 mA	251mA	80	220uF
EC1TA11N	12 VDC	5 VDC	200 mA	15 mA	103mA	81	220uF
EC1TA12N	12 VDC	12 VDC	84 mA	15 mA	103mA	81	220uF
EC1TA13N	12 VDC	15 VDC	67 mA	15 mA	102mA	82	220uF
EC1TA21N	24 VDC	5 VDC	200 mA	7 mA	52mA	80	220uF
EC1TA22N	24 VDC	12 VDC	84 mA	7 mA	52mA	80	220uF
EC1TA23N	24 VDC	15 VDC	67 mA	7 mA	52mA	81	220uF
EC1SA01N	5 VDC	5 VDC	200 mA	40 mA	253 mA	79	220uF
EC1SA02N	5 VDC	12 VDC	84 mA	40 mA	255 mA	79	220uF
EC1SA03N	5 VDC	15 VDC	67 mA	40 mA	254 mA	79	220uF
EC1SA04N	5 VDC	±12 VDC	42 mA	40 mA	258 mA	78	100uF
EC1SA05N	5 VDC	±15 VDC	33 mA	40 mA	254 mA	78	100uF
EC1SA06N	5 VDC	±5 VDC	100 mA	40 mA	270 mA	74	100uF
EC1SA11N	12 VDC	5 VDC	200 mA	15 mA	104 mA	80	220uF
EC1SA12N	12 VDC	12 VDC	84 mA	15 mA	104 mA	81	220uF
EC1SA13N	12 VDC	15 VDC	67 mA	15 mA	103 mA	81	220uF
EC1SA14N	12 VDC	±12 VDC	42 mA	15 mA	105 mA	80	100uF
EC1SA15N	12 VDC	±15 VDC	33 mA	15 mA	102 mA	81	100uF
EC1SA16N	12 VDC	±5 VDC	100 mA	15 mA	108 mA	77	100uF
EC1SA21N	24 VDC	5 VDC	200 mA	7 mA	52 mA	80	220uF
EC1SA22N	24 VDC	12 VDC	84 mA	7 mA	51 mA	83	220uF
EC1SA23N	24 VDC	15 VDC	67 mA	7 mA	52 mA	81	220uF
EC1SA24N	24 VDC	±12 VDC	42 mA	7 mA	52 mA	81	100uF
EC1SA25N	24 VDC	±15 VDC	33 mA	7 mA	50 mA	82	100uF
EC1SA26N	24 VDC	±5 VDC	100 mA	7 mA	53 mA	79	100uF

NOTE: 1. Nominal Input Voltage 5, 12 or 24VDC

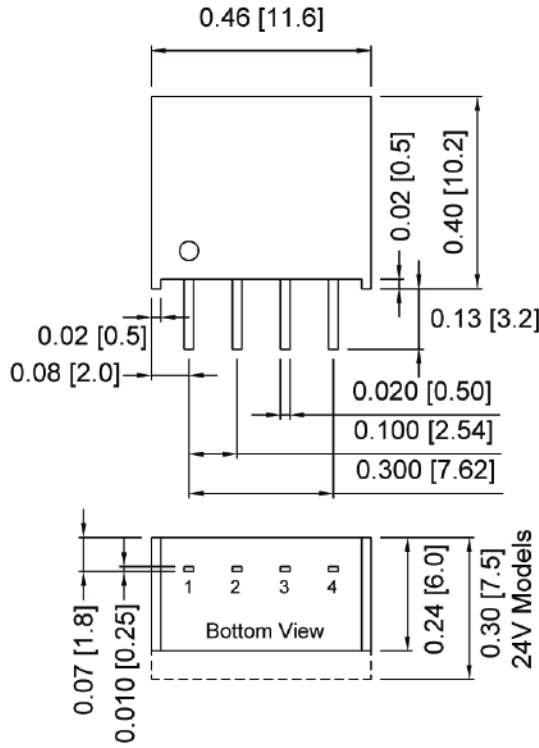
EC1 Series

1 WATT - DC/DC SINGLE & MULTIPLE OUTPUT

TECHNICAL ILLUSTRATION

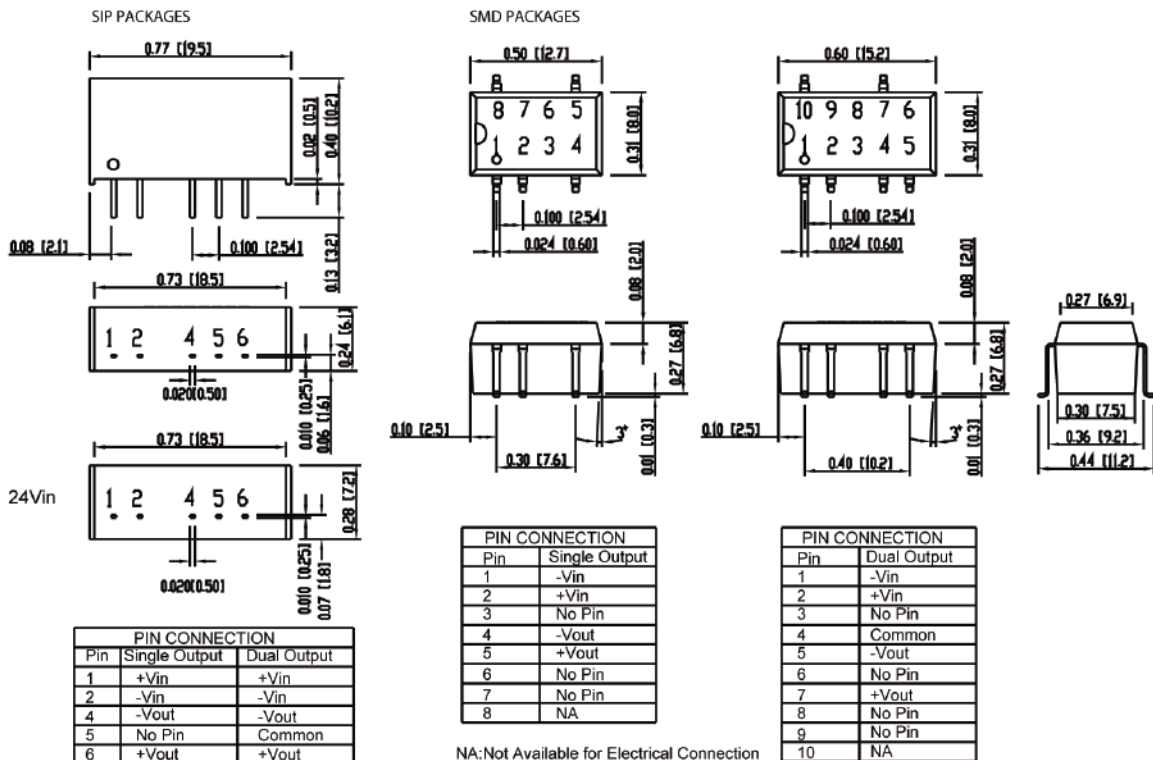
EC1TAN

All Dimensions In Inches (mm)
 Tolerances Inches Millimeters
 Pin ±0.01 ±0.25
 ±0.002 ±0.05



PIN CONNECTION	
Pin	Single
1	-Vin
2	+Vin
3	-Vout
4	+Vout

EC1SAN



PIN CONNECTION		
Pin	Single Output	Dual Output
1	+Vin	+Vin
2	-Vin	-Vin
4	-Vout	-Vout
5	No Pin	Common
6	+Vout	+Vout

PIN CONNECTION	
Pin	Single Output
1	-Vin
2	+Vin
3	No Pin
4	-Vout
5	+Vout
6	No Pin
7	No Pin
8	NA

PIN CONNECTION	
Pin	Dual Output
1	-Vin
2	+Vin
3	No Pin
4	Common
5	-Vout
6	No Pin
7	+Vout
8	No Pin
9	No Pin
10	NA

NA: Not Available for Electrical Connection