

FEATURES:

- 4 pin SIP and 8 pin DIL package
- No-load input current as low as 5mA
- Continuous short-circuit protection
- High Efficiency up to 89%
- Unregulated Output Types
- 1.5KVDC ~ 3KVDC Isolation
- Industry Standard Pinout
- Design refer to IEC62368, UL62368, EN62368

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

Part Number	Input Voltage Range	Output Voltage	Output Current	Efficiency	Capacitive Load(μF)	Package Style
	Vdc	Vdc	mA	%TYP	Max.	
EC3T-12S122P	10.8~13.2	12	167	87	470	T
EC3T-24S242P	21.6~26.4	24	84	89	100	T

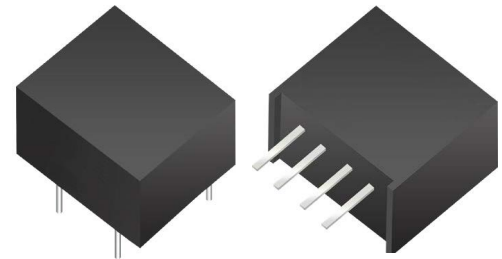
Note:

1: No suffix is standard isolation (1.5KVDC) e.g., EC3-15S052P
 *add suffix "3" for 3KVDC isolation, e.g., EC3T-12S052P3, EC3R-15S122P3
 Package style: T = package 2, R = package 3
 e.g., EC3T-12S052P, EC3R-24D122P3

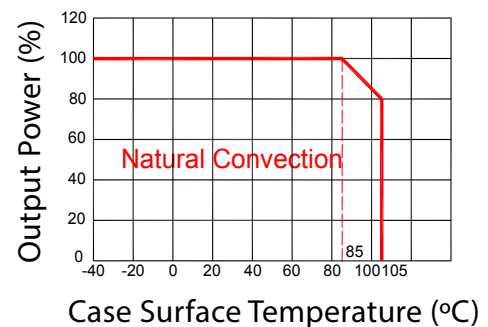


DC-DC Converter EC3-2W Series

2 Watt
1.5KV ~ 3KV Isolated
Single & Dual Output
SIP4 & DIL8



Temperature Derating Graph



Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Range	Vo,lo Nom		±10		%
Filter	Capacitor				

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±5	%
Short Circuit Protection	Continuous				
Line Regulation	For 1.0% OF Vin		1.2		%
Load Regulation	5V (10% To 100% F.L)		8	15	%
	9V (10% To 100% F.L)		6	10	%
	12V (10% To 100% F.L)		5	10	%
	15V (10% To 100% F.L)		4	10	%
Ripple & Noise	24V (10% To 100% F.L)		3	10	%
	BW=DC To 20MHz		75	150	mVp-p

General Specifications

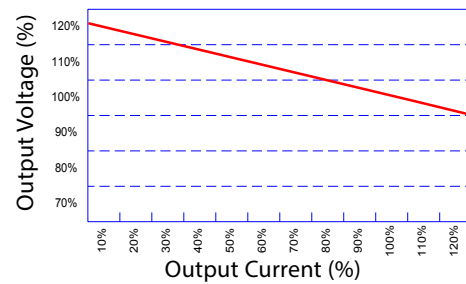
Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Isolation Capacitance	Input-output, 100KHz/0.1V		20		pF
Switching Frequency	Full load, nominal input		250		KHz
Operating Temperature		-40		+105	°C
Storage Temperature		-55		+125	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case Material	DAP				
MTBF	MIL-HDBK-217F@25°C	3,500,000			Hours
Weight	Package 2/3		1.5/1.5		g
Dimensions	Package 2		11.5x6.0x10.0		mm
	Package 3		12.7x10.16x6.8		mm

Part Number

EC3 X - XX X XX X X X
A B C D E F G H

A: Series
B: Package
C: Input Voltage
D: Single (S) / Dual Output (D)
E: Output Voltage
F: Output Power
G: Protection (P)
H: Isolation Voltage

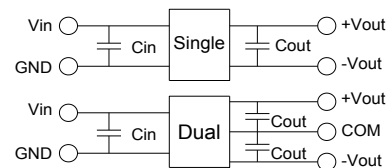
Tolerance Envelope Graph



Electromagnetic Compatibility (EMC)

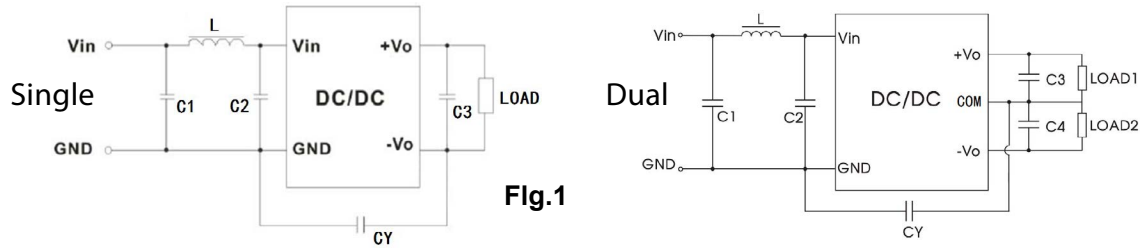
EMI	CE	CISPR32/EN55032 CLASS B (see Fig. 1 for recommended circuit)
	RE	CISPR32/EN55032 CLASS B (see Fig. 1 for recommended circuit)
EMS	ESD	IEC/EN61000-4-2 Air ±8kV , Contact ±4kV perf. Criteria B

Recommended Test Circuit



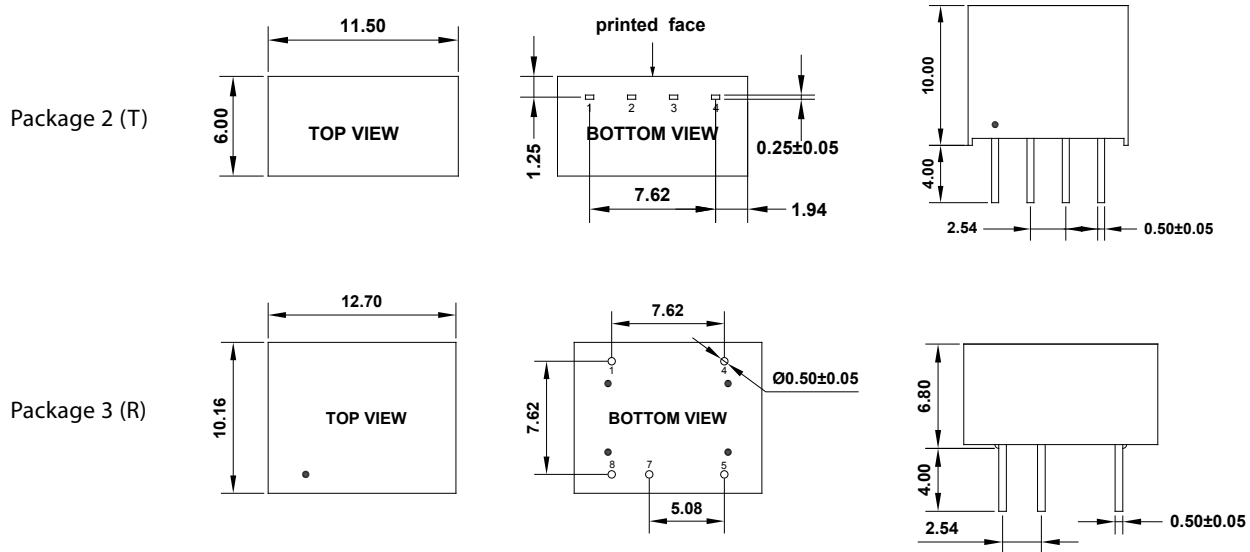
Vin	Cin	Single Vout	Cout	Dual Vout	Cout
12Vdc	2.2μF/25V	5Vdc	10μF/16V	±5Vdc	±4.7μF/16V
15Vdc	2.2μF/25V	9Vdc	2.2μF/16V	±9Vdc	±1μF/16V
24Vdc	1μF/50V	12Vdc	2.2μF/25V	±12Vdc	±1μF/25V
--	--	15Vdc	1μF/25V	±15Vdc	±1μF/25V
--	--	24Vdc	1μF/50V	±24Vdc	±1μF/50V

EMC (CLASS B) Compliance Circuit



EMC Recommended Circuit Value Table		
EMI	C1	4.7μF /50V
	C2	4.7μF /50V
	CY	1nF/4kV
	C3	Recommended Test Circuit
	L	6.8μH

Markings and Dimensions



UNIT: mm unless otherwise specified, all tolerances are ±0.25

PIN Connection

PIN	1	2	3	4	5	7	8
4Pin	-Vin	+Vin	-Vout	+Vout			
8Pin-S	-Vin			+Vin	+Vout	-Vout	
8Pin-D	-Vin			+Vin	+Vout	Com	-Vout