

Unregulated SMD DC/DC Converters

FTS-Series 2 Watt, Single / Dual Output



- DC/DC unregulated converter modules
- SMD pinning
- 1s short circuit proof
- 1kVdc isolation voltage
- UL 94V-0 package material
- DC/DC Wandler unreguliert
- SMD pinning
- 1s kurzschlussfest
- 1kVdc galvanische Trennung
- UL 94V-0 Gehäusematerial und Vergussmasse
- Convertisseur DC/DC non régulé
- Brochage SMD
- Résistant 1s au court-circuit
- Isolation galvanique 1kVdc
- Matériaux de boîtier et masse de remplissage conformes UL 94V-0

Product range

Typenübersicht

Sommaire des types

PART NUMBER	PINNING	INPUT VOLTAGE		OUTPUT		EFFICIENCY
		Nominal	Range	Voltage	Current	Typical
FTS(xx)-3V3SS	SMD-8	5, 9, 12, 15, 24 VDC	±10%	3.3 VDC	606 mA	70%
FTS(xx)-05SS			±10%	5 VDC	400 mA	70%
FTS(xx)-09SS			±10%	9 VDC	222 mA	75%
FTS(xx)-12SS			±10%	12 VDC	167 mA	75%
FTS(xx)-15SS			±10%	15 VDC	133 mA	75%
FTS(xx)-24SS			±10%	24 VDC	83 mA	78%
Dual Output						
FTS(xx)-3V3DS	SMD-10	5, 9, 12, 15, 24 VDC	±10%	±3.3 VDC	±303 mA	70%
FTS(xx)-05DS			±10%	±5 VDC	±200 mA	70%
FTS(xx)-09DS			±10%	±9 VDC	±111 mA	75%
FTS(xx)-12DS			±10%	±12 VDC	±83 mA	75%
FTS(xx)-15DS			±10%	±15 VDC	±66 mA	75%
FTS(xx)-24DS			±10%	±24 VDC	±42 mA	78%

Ordering Example: Substitute (xx) for 05, 09, 12, 15 or 24

FTS 05 - 3V3 S S

Product Series

Nominal Input Voltage

Nominal Output Voltage
(3V3 = 3.3V)

SMD pinning

S = Single Output Voltage

D = Dual Output Voltage

Specifications

Spezifikationen

Spécifications

All values refer to an ambient temperature of 25°C and nominal rated values where nothing else is specified

INPUT SPECIFICATIONS

Characteristics		Conditions	min	typ	max	unit
U_{in}	Input voltage	$T_A < T_{Amax}$	±10			% $U_{in nom}$

OUTPUT SPECIFICATIONS

Characteristics		Conditions	min	typ	max	unit
U_{acc}	Output voltage accuracy	of nominal output voltage			±5	% U_{out}
	Line regulation	$U_{in delta} = ((U_{in nom} - U_{in}) / U_{in nom}) \times 100$			±1.2x $U_{in delta}$	% U_{out}
	Load regulation see "Load Regulation", page 3	10% to 100% load, $U_{out} = 3.3Vdc$			20	% U_{out}
		10% to 100% load, $U_{out} = 5Vdc$			15	
		10% to 100% load, $U_{out} = 9,12,15,24V$			10	
$U_{r,n}$	Output ripple & noise	Single output			150	mVpp
		Dual output			150	mVpp
	Output short circuit characteristic			$I_{out} > I_{nom}$		
	Output short circuit protection		1			sec

GENERAL SPECIFICATIONS

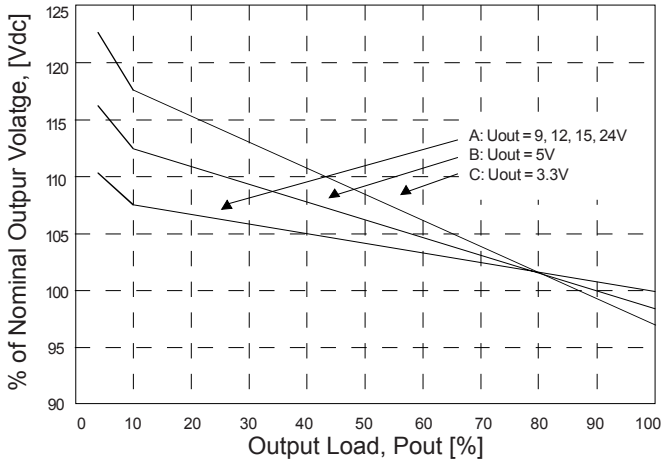
Characteristics		Conditions	min	typ	max	unit
U_{iso}	Isolation voltage	input/output	1'000			Vdc
R_{iso}	Isolation resistance	Input to output		10		GOhm
$C_{I/O}$	Input / output capacitance	Input to output	40		115	pF
f_s	Switching frequency	Fixed, at full load				kHz
	Case material		Plastic, UL 94V-0			
	Weight	Single output		2.1		g
		Dual output			2.5	g
	Dimensions	LxWxH, see "case" page 3	12.75 x 11.8 x 8.9			mm
		LxWxH, see "case" page 4	15.24 x 11.8 x 8.9			mm

ENVIRONMENTAL SPECIFICATIONS

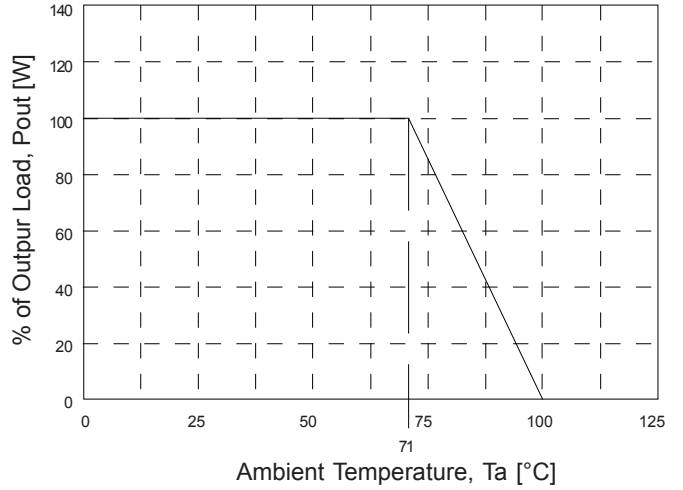
Characteristics		Conditions	min	typ	max	unit
T_A	Operating temperature	Ambient temperature, see also "Derating" page 3	-40		+71	°C
	Storage temperature	Ambient temperature	-55		+125	°C

Typical characteristics

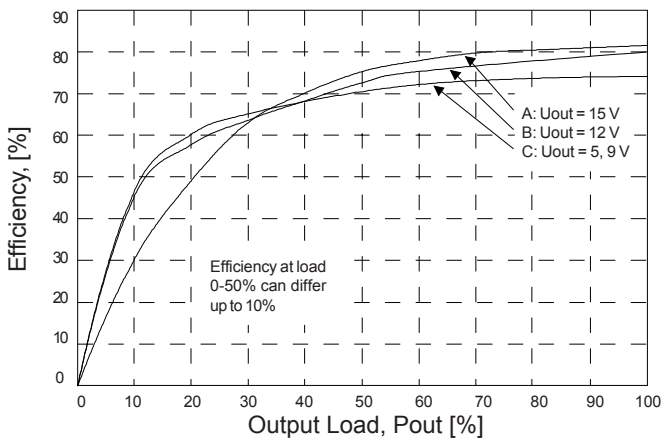
Load Regulation (typical values)



Derating



Efficiency (typical values)



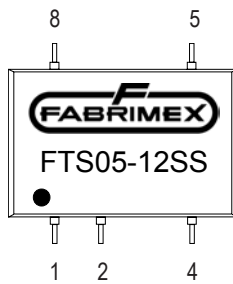
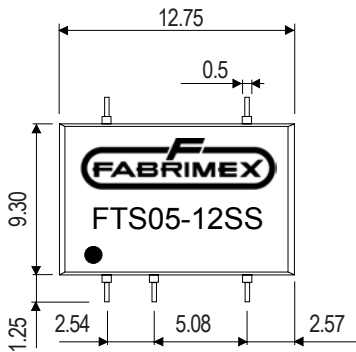
Case

Gehäuse

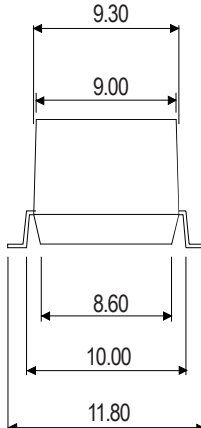
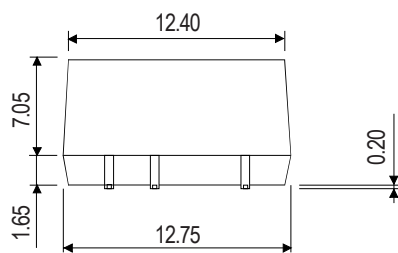
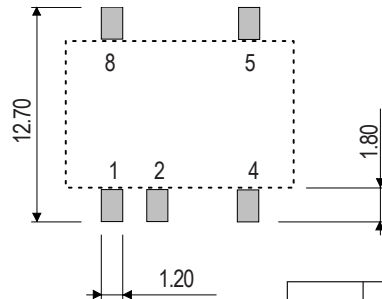
Boîtier

Normal tolerance 1/10 ±0.5 mm, 1/100 ±0.25 mm

Single output; FSTxx-xxSS:



Recommended Footprint, Top View



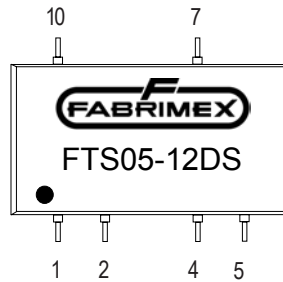
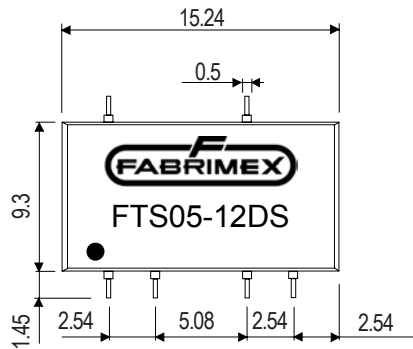
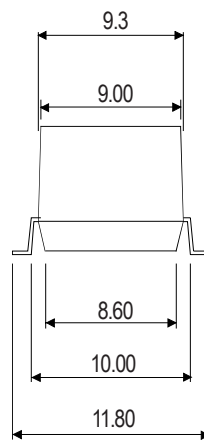
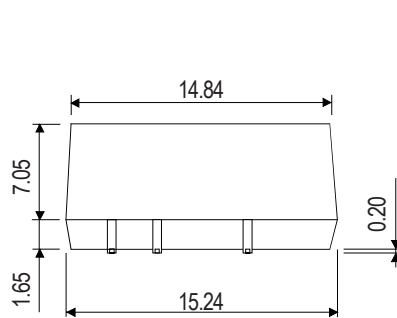
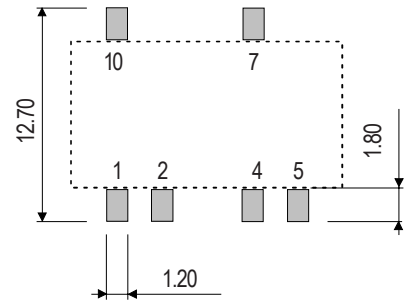
Pin	Single
1	-Vin
2	+Vin
3	NP
4	-Vout
5	+Vout
6	NP
7	NP
8	NC

NP = No Pin

NC = No Connection

Continued:

Dual output; FTSxx-xxDS:

Recommended Footprint,
Top View

Pin	Single
1	-Vin
2	+Vin
3	NP
4	common
5	-Vout
6	NP
7	+Vout
8	NP
9	NP
10	NC

NP = No Pin
NC = No Connection

Notice: All statements, technical information, and recommendations related to FABRIMEX's products are based on information believed to be reliable, but the accuracy or completeness thereof is not guaranteed. Before utilizing the product, the user should determine the suitability of the product for its intended use.

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