

Regulated SMD DC/DC Converters

FSZ-Series 1 Watt, Single Output



- ±5% input voltage range
- DC/DC regulated converter modules
- Industry standard pinning
- 1s short circuit proof
- 1kVdc and 2kVdc isolation voltage
- UL 94V-0 package material

- ±5% Eingangsspannungsbereich
- DC/DC Wandler reguliert
- Industriestandard pinning
- Dauerkurzschlussfest
- 1kVdc und 2kVdc galvanische Trennung
- UL 94V-0 Gehäusematerial und Vergussmasse

- Gamme d'entrée ±5%
- Convertisseur DC/DC régulé
- Brochage standard industriel
- Protection contre court-circuit permanentes
- Isolation galvanique 1kVdc ou 2kVdc
- 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 |
| FSZ(xx)-03SMS* | SMD | 3.3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28 VDC | ±5% | 3 VDC | 333 mA | >50% |
| FSZ(xx)-04SMS* | | | ±5% | 4 VDC | 250 mA | >50% |
| FSZ(xx)-05SMS* | | | ±5% | 5 VDC | 200 mA | >50% |
| FSZ(xx)-06SMS* | | | ±5% | 6 VDC | 166 mA | >50% |
| FSZ(xx)-07SMS* | | | ±5% | 7 VDC | 142 mA | >50% |
| FSZ(xx)-08SMS* | | | ±5% | 8 VDC | 125 mA | >50% |
| FSZ(xx)-09SMS* | | | ±5% | 9 VDC | 111 mA | >50% |
| FSZ(xx)-10SMS* | | | ±5% | 10 VDC | 100 mA | >50% |
| FSZ(xx)-11SMS* | | | ±5% | 11 VDC | 90 mA | >50% |
| FSZ(xx)-12SMS* | | | ±5% | 12 VDC | 83 mA | >50% |
| FSZ(xx)-13SMS* | | | ±5% | 13 VDC | 77 mA | >50% |
| FSZ(xx)-14SMS* | | | ±5% | 14 VDC | 71 mA | >50% |

* Standard Version:
Option: H instead of M
Ordering Example:

MS = 1'000Vdc I/O isolation
HS = 2'000Vdc I/O isolation
Substitute (xx) for 3V3, 05, 09, 12, 15 or 24

FSZ 17 - 09 S M S

Product Series

Nominal Input Voltage

Nominal Output Voltage
(09 = 9V)

S = SMD pinning

M = 1'000 Vdc isolation voltage

H = 2'000 Vdc isolation voltage

S = Single 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 | $T_A < T_{Amax}$ | | ±5 | | % $U_{in nom}$ |

OUTPUT SPECIFICATIONS

| Characteristics | | Conditions | min | typ | max | unit |
|-----------------|-------------------------------------|---------------------------|-----|-------------------------|-----|-------------|
| U_{acc} | Output voltage accuracy | of nominal output voltage | | | ±2 | % U_{out} |
| | Line regulation | | | | ±1 | % U_{out} |
| | Load regulation | | | | ±1 | % U_{out} |
| $U_{r,n}$ | Output ripple & noise | Band width up to 20MHz | | | 100 | mVpp |
| | Output short circuit characteristic | | | $I_{out} > I_{out nom}$ | | |
| | Output short circuit protection | | | 1 | | sec |

GENERAL SPECIFICATIONS

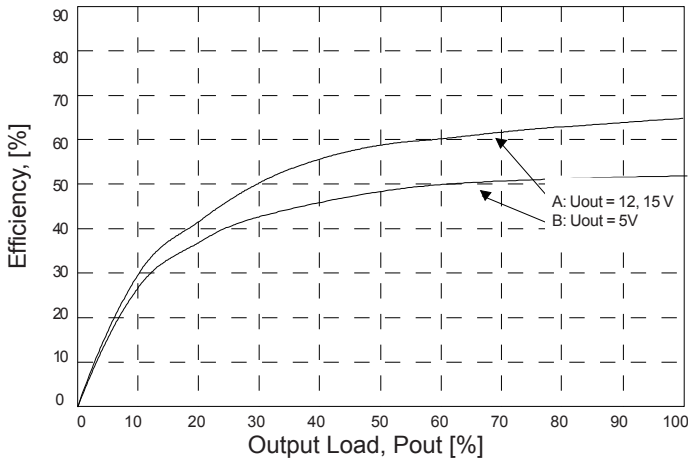
| Characteristics | | Conditions | min | typ | max | unit |
|-----------------|----------------------------|--------------------------|-------------------|-----|-----|------|
| U_{iso} | Isolation voltage | input/output (M-Version) | 1'000 | | | Vdc |
| | | input/output (H-Version) | 2'000 | | | Vdc |
| $C_{I/O}$ | Input / output capacitance | Input to output | | 50 | | pF |
| f_s | Switching frequency | Fixed, at full load | 20 | | | kHz |
| | Case material | | Plastic, UL 94V-0 | | | |
| | Weight | | | 2.7 | | g |
| | Dimensions | LxWxH | 15.24 x 9.3 x 8.9 | | | mm |

ENVIRONMENTAL SPECIFICATIONS

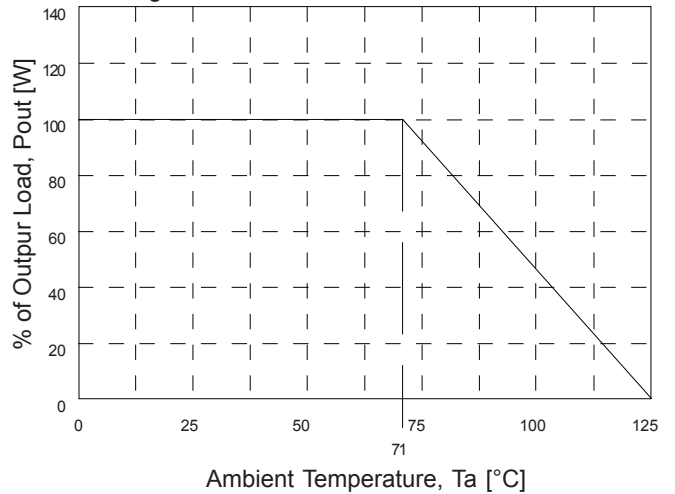
| Characteristics | | Conditions | min | typ | max | unit |
|-----------------|-----------------------|---|-----|-----|------|------|
| T_A | Operating temperature | Ambient temperature, see also "Derating" page 3 | -40 | | +71 | °C |
| | Storage temperature | Ambient temperature | -55 | | +125 | °C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

Typical characteristics

Efficiency (typical values)



Derating

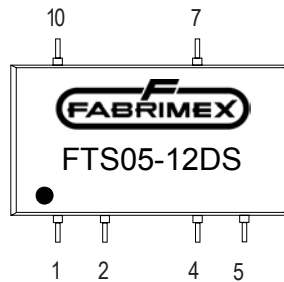
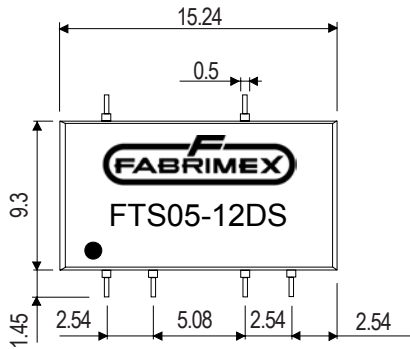


Case

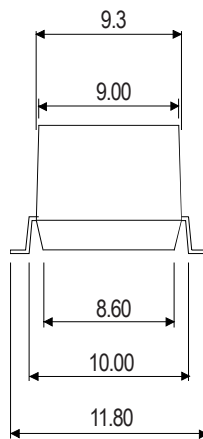
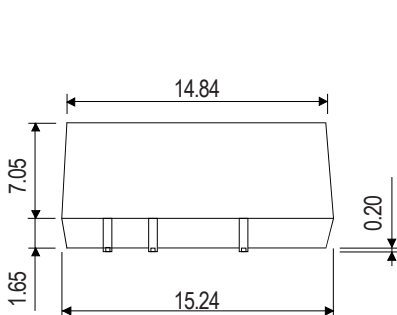
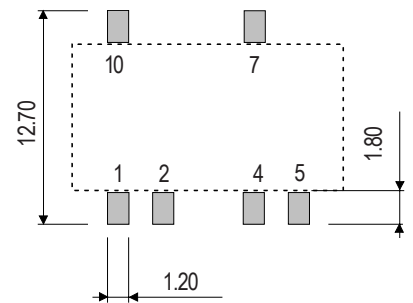
Gehäuse

Boîtier

Dimensions in mm. Normal tolerance 1/10 ±0.5 mm, 1/100 ±0.25 mm



Recommended Footprint, Top View



| Pin | Single |
|-----|--------|
| 1 | -Vin |
| 2 | +Vin |
| 3 | NP |
| 4 | -Vout |
| 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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