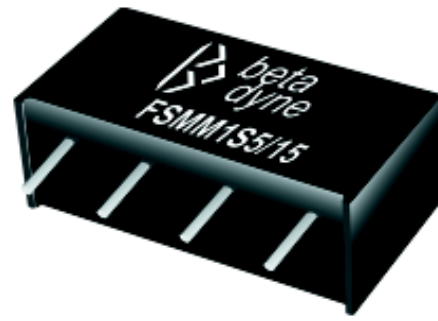




FSMM1S

1W SINGLE DC/DC CONVERTER



Functional Description

The FSMM1S series of unregulated 1W single DC/DC converters feature industry standard pinout in an SMD package with a minimum isolation voltage of 1000Vdc (3000Vdc optional), maximum efficiency of 85% and operating temperature range from -40°C to +85°C.

Electrical Specifications: Unregulated

INPUT SPECIFICATIONS

Measured at 25°C with the condition of V_{IN} = Nominal and Full Load. Specifications subject to change without notice.

PARAMETER	CONDITION / NOTE	MIN	TYP	MAX	UNIT
Input Voltage Range	V_{IN} Nominal $\pm 10\%$; See Model Selection Guide				
Input Filter	Capacitor				

OUTPUT SPECIFICATIONS

PARAMETER	CONDITION / NOTE	MIN	TYP	MAX	UNIT
Output Voltage	See Model Selection Guide				
Output Current	See Model Selection Guide				
Output Voltage Accuracy				± 5	%
Ripple & Noise	@20MHz BW			100	mV _{PP}
Line Regulation, 3.3, 5V _{OUT}	Minimum V_{IN} to maximum V_{IN}		1.3%		per 1% of V_{IN}
Line Regulation, 9, 12, 15V _{OUT}	Minimum V_{IN} to maximum V_{IN}		1.2%		per 1% of V_{IN}
Load Regulation, 3.3, 5V _{OUT}	10% FL to FL			15	%
Load Regulation, 9, 12, 15V _{OUT}	10% FL to FL			10	%
Short Circuit Protection			1		sec

GENERAL SPECIFICATIONS

PARAMETER	CONDITION / NOTE	MIN	TYP	MAX	UNIT
Efficiency @ FL	See Model Selection Guide				
Isolation Voltage, Input to Output		1000			Vdc
Isolation Resistance			10		G Ω
Isolation Capacitance			80		pF

ENVIRONMENTAL SPECIFICATIONS

PARAMETER	CONDITION / NOTE	MIN	TYP	MAX	UNIT
Operating Temperature Range	Ambient	-40		+85	°C
Storage Temperature Range		-55		+125	°C

PHYSICAL CHARACTERISTICS

PARAMETER	CONDITION / NOTE	MIN	TYP	MAX	UNIT
Dimensions (L×W×H)	0.45×0.24×0.39 in. (11.50×6.00×10.00mm)				
Weight	0.049 oz. (1.4g)				

MODEL SELECTION GUIDE

MODEL NUMBER	OUTPUT VOLTAGE (Vdc)	OUTPUT CURRENT (mA)	INPUT VOLTAGE* (Vdc)	EFFICIENCY (%)
FSMM1S1.8/XX	1.8	555	1.8, 3.3, 5, 9, 12, 15, 24	70
FSMM1S3.3/XX	3.3	300	1.8, 3.3, 5, 9, 12, 15, 24	75
FSMM1S5/XX	5	200	1.8, 3.3, 5, 9, 12, 15, 24	70-78
FSMM1S9/XX	9	111	1.8, 3.3, 5, 9, 12, 15, 24	70-78
FSMM1S12/XX	12	84	1.8, 3.3, 5, 9, 12, 15, 24	78-82
FSMM1S15/XX	15	66	1.8, 3.3, 5, 9, 12, 15, 24	78-84
FSMM1S24/XX	24	42	1.8, 3.3, 5, 9, 12, 15, 24	78-85

Mechanical Specifications

Reflow Temp = 280°C (10 sec.)

Pin	Function
1	-V _{IN} (GND)
2	+V _{IN}
3	-V _{OUT}
4	+V _{OUT}

