

25 to 30 Watt 2.56x3 Inch Case F 2:1 Input Range



- o Wide Input Range
- o Efficiency up to 84%
- o Single, Dual & Triple Output
- o Remote On/Off Control
- o Continuous Short Circuit Protection



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF
				NO LOAD	FULL LOAD	
25FRS12W5LC	9-18 VDC	5 VDC	5000 mA	30 mA	2700 mA	77
30FRS12W12LC		12 VDC	2500 mA		3150 mA	79
30FRS12W15LC		15 VDC	2000 mA			
30FRD12W12LC		±12 VDC	±1250 mA	35 mA	3100 mA	81
30FRD12W15LC		±15 VDC	±1000 mA			
30FRT12W5/12LC		+5/±12 VDC	+3000/±625 mA		3200 mA	78
30FRT12W5/15LC		+5/±15 VDC	+3000/±500 mA			
30FRT12W12/5LC		+12/±5 VDC	+600/+3000/-1000 mA		2940 mA	77
25FRS24W5LC	18-36 VDC	5 VDC	5000 mA	30 mA	1350 mA	77
30FRS24W12LC		12 VDC	2500 mA		1550 mA	81
30FRS24W15LC		15 VDC	2000 mA			
30FRD24W12LC		±12 VDC	±1250 mA		1500 mA	84
30FRD24W15LC		±15 VDC	±1000 mA			
30FRT24W5/12LC		+5/±12 VDC	+3000/±625 mA		1580 mA	79
30FRT24W5/15LC		+5/±15 VDC	+3000/±500 mA		1560 mA	80
30FRT24W12/5LC		+12/±5 VDC	+600/+3000/-1000 mA		1450 mA	78
25FRS48W5LC	36-72 VDC	5 VDC	5000 mA	15 mA	670 mA	78
30FRS48W12LC		12 VDC	2500 mA		770 mA	81
30FRS48W15LC		15 VDC	2000 mA			
30FRD48W12LC		±12 VDC	±1250 mA	20 mA	750 mA	84
30FRD48W15LC		±15 VDC	±1000 mA			
30FRT48W5/12LC		+5/±12 VDC	+3000/±625 mA		790 mA	79
30FRT48W5/15LC		+5/±15 VDC	+3000/±500 mA		780 mA	80
30FRT48W12/5LC		+12/±5 VDC	+600/+3000/-1000 mA		725 mA	78

SPECIFICATIONS

All Specifications Typical At Nominal Line, Full Load, and 25°C Unless Otherwise Noted

INPUT SPECIFICATIONS

Input Voltage Range	2:1
Input Filter	Pi Type

OUTPUT SPECIFICATIONS

Voltage Accuracy	Single & Dual	+Output	±1% max.
	Dual	-Output	±3% max.
	Triple	5V Output	±1% max.
	Triple	12V/15V Output	±5% max.
	Triple	-5V Output	±2% max.
Voltage Balance, Dual Output at Full Load			±1% max.
Transient Response			
Single, 25% Step Load Change			<500 μsec.
Dual, Full Load to Half Load ±1% Error Band			
External Trim Adj. Range			±10%
Ripple and Noise, 20MHz BW			10 mV RMS max. 75 mV p-p max.
Temperature Coefficient			±0.02%/°C max.
Short Circuit Protection			Continuous
Line Regulation ¹⁾	Single & Dual Output		±0.2% max.
	Triple Output		±1% max.
Load Regulation ²⁾	Single & Dual Output		±1% max.
	Triple Output		±5% max.

NOTE:

1. Line Regulation measured from High Line to Low Line.
2. Load Regulation measured from Full Load to 1/4 Load.

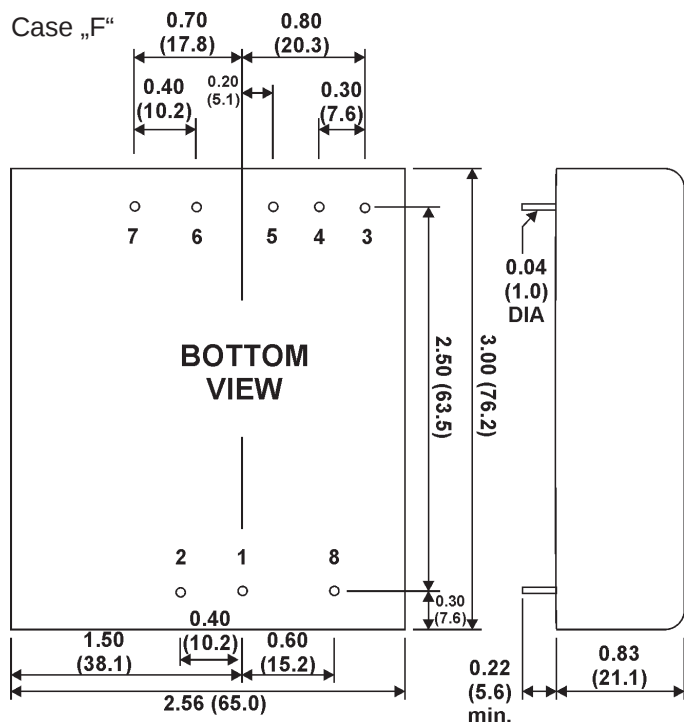
GENERAL SPECIFICATION

Efficiency	see table
Isolation Voltage	500 VDC min.
Isolation Resistance	1000 Mohms
Switching Frequency	200 kHz
Operating Temperature Range	-25°C to +71°C
Case Temperature	+100°C max.
Derating >+71°C	-3.5%/°C
Storage Temperature Range	-55°C to +105°C
Cooling	Free-Air Convection
EMI/RFI	Six-Sided Continuous Shield
Case Material	Black Coated Copper with Non-Conductive Base
MTBF (MIL-HDBK-217F)	min. 705.000 hrs
Dimensions	2.56 x 3.0 x 0.83 Inches (65 x 76.2 x 21.1. mm)

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MECHANICAL SPECIFICATIONS



**All Dimensions in Inches (mm).
Tolerance x.xx = ± 0.04 , x.xxx = ± 0.010**

PIN CONNECTIONS			
PIN	SINGLE	DUAL	TRIPLE
1	+INPUT	+INPUT	+INPUT
2	-INPUT	-INPUT	-INPUT
3	+SENSE	+OUTPUT	+OUTPUT
4	OUTPUT TRIM	COMMON	COMMON
5	-SENSE	-OUTPUT	-OUTPUT
6	+OUTPUT	NO PIN	+5V OUTPUT
7	-OUTPUT	NO PIN	NO PIN
8	REMOTE ON/OFF CONTROL		

APPLICATION NOTES

OVER VOLTAGE PROTECTION	
OUTPUT VOLTAGE	O.V.P.
5VDC	6.8V
12VDC	15V
15VDC	18V

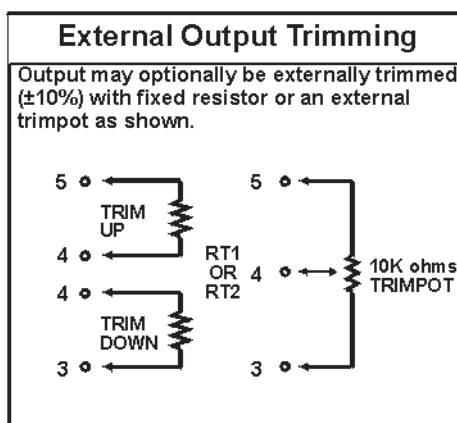
REMOTE ON/OFF CONTROL	
Logic Compatibility	CMOS or Open Collector TTL
Ec-ON	>+5.5VDC or Open Circuit
Ec-OFF	<1.8VDC
Shutdown Idle Current	10mA
Control Common	Referenced to Input Minus

TRIPLE OUTPUT LOADING ¹⁾			
OUTPUT (PIN NO.)	VOLTAGE	AMPERES	
		MIN. ²⁾	NOM.
6	+5 VDC	0.5 A	3.0 A
3 & 5	±12 VDC	0.1 A	0.625 A
3 & 5	±15 VDC	0.1 A	0.5 A
3 & 5	+12 & -5 VDC	0.1/0.1 A	0.6/1.0 A

NOTE:

1) Maximum total power from all outputs is limited to 30 watts but no output should be allowed to exceed its maximum current.

2) Minimum current on each output is required to maintain specified regulation.



NOTICE:

NOTICE:
The information in this document has been carefully checked. However, no responsibility is assumed for inaccuracies! Specifications can be changed without notice. The latest and most complete information can be found on our website.