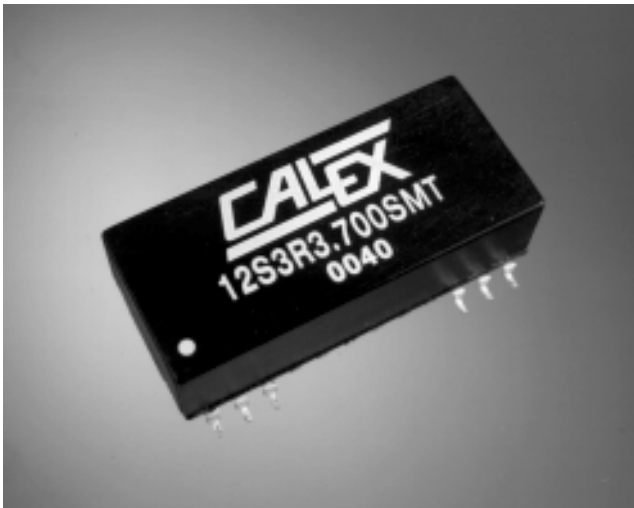


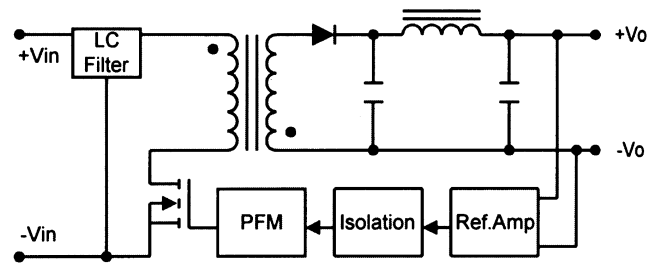
3 Watt SMT Single Series DC/DC Converters



Features

- SMT Technology
- 2:1 Input Range
- High Efficiency up to 83%
- I/O Isolation 1500VDC
- Short Circuit Protected
- CECC00802 Reflow
- MTBF > 1,000,000 Hours

Selection Chart					
Model	Input Range VDC		Output		
	Min	Max	VDC	mA	Power W
12S3R3.700SMT	9	18	3.3	700	3
12S5.600SMT	9	18	5	600	3
12S12.250SMT	9	18	12	250	3
12S15.200SMT	9	18	15	200	3
24S3R3.700SMT	18	36	3.3	700	3
24S5.600SMT	18	36	5	600	3
24S12.250SMT	18	36	12	250	3
24S15.200SMT	18	36	15	200	3
48S3R3.700SMT	36	75	3.3	700	3
48S5.600SMT	36	75	5	600	3
48S12.250SMT	36	75	12	250	3
48S15.200SMT	36	75	15	200	3



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Input Parameters										
Model		12S3R3.700SMT	12S5.600SMT	12S12.250SMT	12S15.200SMT	Units				
Voltage Range	MIN	9.0				VDC				
	TYP						12.0			
	MAX									
Input Current No Load	TYP	20	20	20	20	mA				
Full Load	TYP	257	316	305	305					
Reflected Ripple	TYP	25				mA				
Under Voltage Shutdown	MAX	8				VDC				
Reverse Polarity	MAX	0.5				A				
Input Current										
Short Circuit Input Power	MAX	1500				mW				
Input Filter		Pi Filter								
Efficiency	TYP	75	79	82	82	%				
Switching Frequency	TYP	300				kHz				
Input Surge Voltage (1000 ms)	MIN	-0.7				VDC				
	MAX						25			
Internal Power Dissipation	MAX	2500				mW				
Recommended Fuse		750 mA Slow Blow Type				mA				
Model		24S3R3.700SMT	24S5.600SMT	24S12.250SMT	24S15.200SMT	Units				
Voltage Range	MIN	18.0				VDC				
	TYP						24.0			
	MAX									
Input Current No Load	TYP	5	5	5	5	mA				
Full Load	TYP	127	156	151	151					
Reflected Ripple	TYP	15				mA				
Under Voltage Shutdown	MAX	16				VDC				
Reverse Polarity	MAX	0.5				A				
Input Current										
Short Circuit Input Power	MAX	1500				mW				
Input Filter		Pi Filter								
Efficiency	TYP	76	80	83	83	%				
Switching Frequency	TYP	300				kHz				
Input Surge Voltage (1000 ms)	MIN	-0.7				VDC				
	MAX						50			
Internal Power Dissipation	MAX	2500				mW				
Recommended Fuse		350 mA Slow Blow Type				mA				
Model		48S3R3.700SMT	48S5.600SMT	48S12.250SMT	48S15.200SMT	Units				
Voltage Range	MIN	36.0				VDC				
	TYP						48.0			
	MAX									
Input Current No Load	TYP	3	3	3	3	mA				
Full Load	TYP	63	78	75	75					
Reflected Ripple	TYP	10				mA				
Under Voltage Shutdown	MAX	32				VDC				
Reverse Polarity	MAX	0.5				A				
Input Current										
Short Circuit Input Power	MAX	1500				mW				
Input Filter		Pi Filter								
Efficiency	TYP	76	80	83	83	%				
Switching Frequency	TYP	300				kHz				
Input Surge Voltage (1000 ms)	MIN	-0.7				VDC				
	MAX						100			
Internal Power Dissipation	MAX	2500				mW				
Recommended Fuse		200 mA Slow Blow Type				mA				

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Output Parameters						
Model		12S3R3.700SMT 24S3R3.700SMT 48S3R3.700SMT	12S5.600SMT 24S5.600SMT 48S5.600SMT	12S12.250SMT 24S12.250SMT 48S12.250SMT	12S15.200SMT 24S15.200SMT 48S15.200SMT	Units
Output Voltage		3.3	5	12	15	VDC
Output Current	MIN MAX	70 700	60 600	25 250	20 200	mA
Output Voltage Accuracy	TYP MAX	±0.5 ±1.0				%
Load Regulation, Io=10% to 100%	TYP MAX	±0.3 ±1.0				%
Line Regulation, Vin=Min. to Max.	TYP MAX	±0.1 ±0.3				%
Ripple & Noise (20MHz)	TYP MAX	50 75				mV P-P
Ripple & Noise (20MHz), Over Line, Load & Temp	MAX	100				mV P-P
Ripple & Noise (20MHz)	MAX	10				mV RMS
Over Load	MIN	120				%
Transient Recovery Time, 25% Load Step Change	TYP MAX	200 500				µs
Transient Response Deviation, 25 % Load Step Change	TYP MAX	±2 ±6				%
Temperature Coefficient	TYP MAX	±0.01 ±0.02				%/°C
Short Circuit		Continuous				

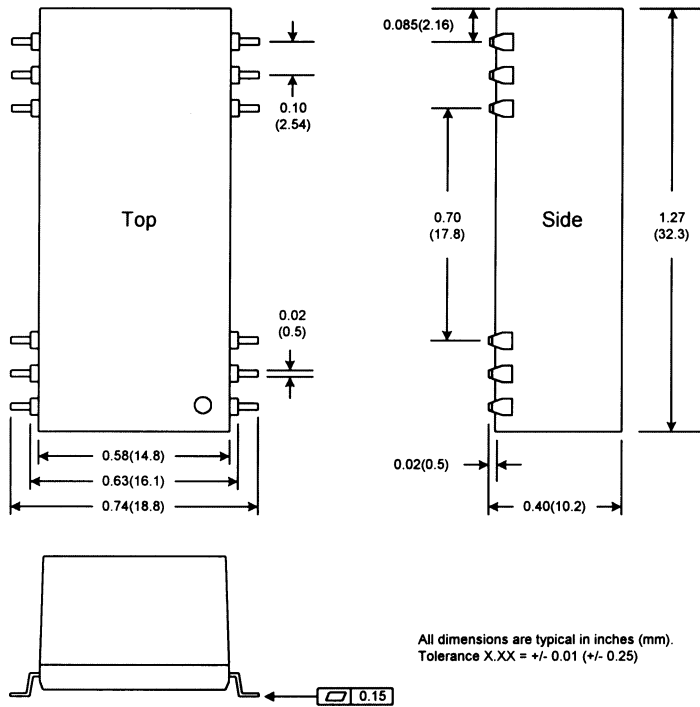
NOTES

- (1) Specifications typical at T_a=+25°C, resistive load, nominal input voltage, full rated output current unless otherwise noted.
- (2) Transient recovery time is measured to within 1% error band for a step change in output load 75% to 100%
- (3) When measuring output ripple & noise, an external 0.1µF ceramic capacitor is recommended to be placed from +V_{out} to -V_{out}.
- (4) Specifications subject to change without notice.

General Specifications			
All Models			Units
Isolation			
Isolation Voltage, 60 Seconds	MIN	1500	VDC
Isolation Resistance, 500 VDC	TYP	1000	Mohms
Isolation Capacitance, 100kHz, 1V	TYP MAX	65 100	pF
Environmental			
Operating Temperature	MIN MAX	-40 +71	°C
Storage Temperature	MIN MAX	-40 +125	°C
Humidity	MAX	95	%
Cooling		Free-Air Convection	
General			
Case Size		1.27 x 0.74 x 0.4 inches 32.3 x 18.8 x 10.2mm	
Case Material		Non-Conductive Black Plastic	
Weight		10g	

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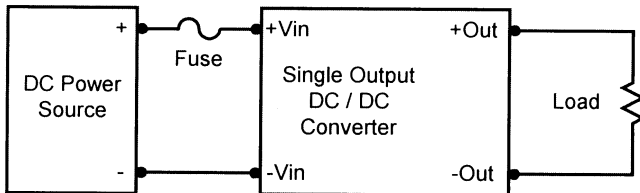
Mechanical Configuration



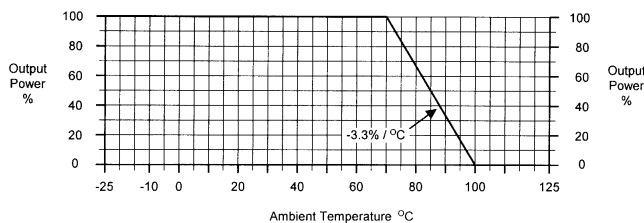
Pin	Function
1, 2	-INPUT
3, 10, 11, 12, 14, 22	NC
13	+OUTPUT
15	-OUTPUT
23, 24	+INPUT

NC: No Connection

Typical Application



Derating Curve



Connecting Pin Patterns

