

**KEY FEATURES**

- Power Modules for PCB Mounting
- Synchronous Rectifier Topology
- Surface Mount Technology
- Remote ON/OFF Control (Optional)
- 4:1 Input Range (Optional)
- Standard 2" x 1" Package and Pinout
- 2-Year Product Warranty

*PRELIMINARY*


**ELECTRICAL SPECIFICATIONS**

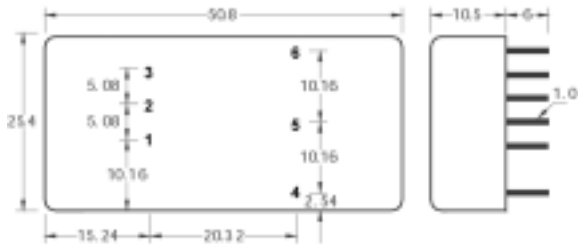
Model No.	ST20-24-2.5S	ST20-24-3.3S	ST20-24-5S
Max. output wattage (W)	12.5W	14W	20W
Input voltage (V.DC.)	24V (18-36V)	24V (18-36V)	24V (18-36V)
Output voltage (V.DC.)	2.5V / 5000mA	3.3V / 4250mA	5V / 4000mA

Model No.	ST20-48-2.5S	ST20-48-3.3S	ST20-48-5S
Max. output wattage (W)	12.5W	14W	20W
Input voltage (V.DC.)	48V (36-75V)	48V (36-75V)	48V (36-75V)
Output voltage (V.DC.)	2.5V / 5000mA	3.3V / 4250mA	5V / 4000mA

Model No.	ST20-24-2.5S ST20-48-2.5S	ST20-24-3.3S ST20-48-3.3S	ST20-24-5S ST20-48-5S
Max output wattage (W)	12.5W	14W	20W
Input	Input filter $\pi$ type		
Output	Voltage (V.DC.)	2.5	5
	Voltage accuracy	$\pm 2\%$	$\pm 2\%$
	Current (mA) max	4250	4000
	Line regulation (HL-LL) (typ.)	$\pm 0.5\%$	$\pm 0.5\%$
	Load regulation (10-100%) (typ.)	$\pm 1\%$	$\pm 1\%$
	Ripple	$< 0.2\% V_{out} + 20mV$ max (Vp-p)	
	Noise	$< 0.5\% V_{out} + 50mV$ max (Vp-p)	
	Efficiency	86%	87%
	Switching frequency	400KHz	400KHz
Protection	Over current protection	Works over 120% of rating and recovers automatically.	
	Over voltage protection	Zener diode clamp	
	Short circuit protection	Current limit, auto-recovery	
	Transient response	500 us (100% to 50% full load at $\pm 1\%$ error band)	
Isolation	Voltage	1600 VDC.	
	Resistance	$10^9$ ohms	
	Capacitance	1000 pF	
Environment	Operating temperature	$-25^{\circ}C \dots +71^{\circ}C$	
	Storage temperature	$-55^{\circ}C \dots +105^{\circ}C$	
	Case temperature	$+95^{\circ}C$ max.	
	Temperature coefficient	$\pm 0.02\%$ Per $^{\circ}C$	
	Humidity	95% RH	
	MTBF	$> 550,000$ h @ $25^{\circ}C$ (MIL-HDBK-217F)	
Physical	Dimension (L x W x H)	2.0 x 1.0 x 0.413 Inches (50.8 x 25.4x 10.5 mm)	
	Case Material	Nickel-Coated Copper with Non-Conductive base, six-side shielded.	
	Weight	30 g	
	Cooling method	Free-air convection	

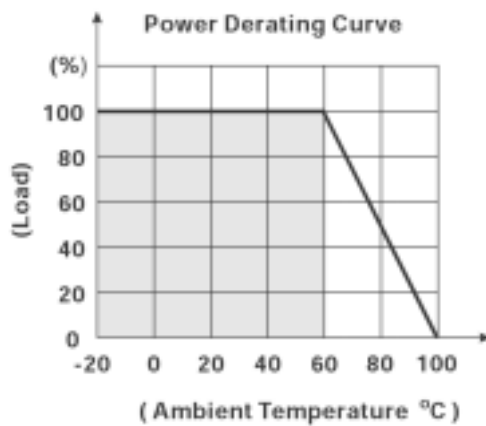
All specifications valid at nominal input voltage, full load and  $+25^{\circ}C$  after warm-up time unless otherwise stated.

**MECHANICAL DIMENSION (Top View)**



PIN#	Single
1	+DC IN
2	-DC IN
3	REMOTE ON/OFF
4	+DC OUT
5	NO PIN
6	-DC OUT

**DERATING**



**BLOCK DIAGRAM**

