

# SIL15 Series

## Single output

**NEW Product**

- Ultra-wide trim range (0.9V to 3.3V/5V)
- Current sink capable for termination applications
- Horizontal and vertical models available
- High power density design means reduced board space requirement
- Power good output signal (open collector)
- Operating ambient temperature up to +80°C with suitable derating and forced air cooling
- Remote ON/OFF (active high)
- 0A minimum load
- Input undervoltage lockout
- Over-current and short-circuit protection



The SIL15 Series is a new high density open frame non-isolated converter for space-sensitive applications. Each model has a wide input range (4.5V to 5.5V or 10.2V to 13.8V) and offer a wide 0.9V to 3.3V/5V output voltage range with a 15A load. An external resistor adjusts the output voltage from its pre-set value of 0.9V to any value up to the maximum allowed value for that model. Typical efficiencies are 89% for the 5V input version and 91% for the 12V input version. The SIL15 series offers remote ON/OFF and over-current protection as standard. With full international safety approval including EN60950 and UL/cUL60950, the SIL15 reduces compliance costs and time to market.

**2 YEAR WARRANTY**

All specifications are typical at nominal input, full load at 25°C unless otherwise stated

### SPECIFICATIONS

#### OUTPUT SPECIFICATIONS

Voltage adjustability (See Note 5)	5V input models 12V input models	0.9V to 3.3V 0.9V to 5.0V
Output setpoint accuracy	With 1.0% trim resistors	±2.5%
Line regulation	Low line to high line	±0.2% max.
Load regulation	Full load to min. load	±0.5% max.
Min/max load		0A/15A
Overshoot (at turn on)	5V input models 12V input models	3% max. 1% max.
Undershoot		100mV max.
Ripple and noise (5Hz to 20MHz)	(See Note 1)	See table
Transient response (See Note 2)	Deviation	100mV 200µs recovery to within regulation band

#### INPUT SPECIFICATIONS

Input voltage range	5V input model 12V input model	4.5 to 5.5VDC 10.2 to 13.8VDC
Input current	Minimum load Remote OFF	65mA 20mA
Input current (max.) (See Note 3)	5V input model 12V input model	11.5A @ I <sub>o</sub> max. 8.1A @ I <sub>o</sub> max.
Input reflected ripple (See Note 4)	5V input model 12V input model	200mA (pk-pk) 200mA (pk-pk)
Remote ON/OFF Logic compatibility		Active high ON >2.4VDC OFF <0.8VDC
Start-up time (See Note 9)	Power up Remote ON/OFF	<20ms <20ms

#### INPUT SPECIFICATIONS Contd.

Turn ON threshold	5V input model 12V input model	4.5V 9.0V
Turn OFF threshold	5V input model 12V input model	4.3V 7.5V

#### GENERAL SPECIFICATIONS

Efficiency		See table
Switching frequency	Fixed	200kHz typ.
Approvals and standards (See Note 7)		TÜV Product Service IEC60950, UL/cUL60950
Material flammability		UL94V-0
Weight		14.2g (0.5oz)
MTBF	MIL-HDBK-217F	468,803 hours
Representative model:	12V model @ 40°C 100% load, ground benign Bellcore 332	7,817,294 hours

#### ENVIRONMENTAL SPECIFICATIONS

Thermal performance (See Note 10)	Operating ambient, temperature Non-operating	0°C to +80°C -40°C to +125°C
Altitude derating (above sea level)	3,000m (9,843 ft.) 10,000m (32,808 ft.)	20% 50%



# SIL15 Series

## Single output

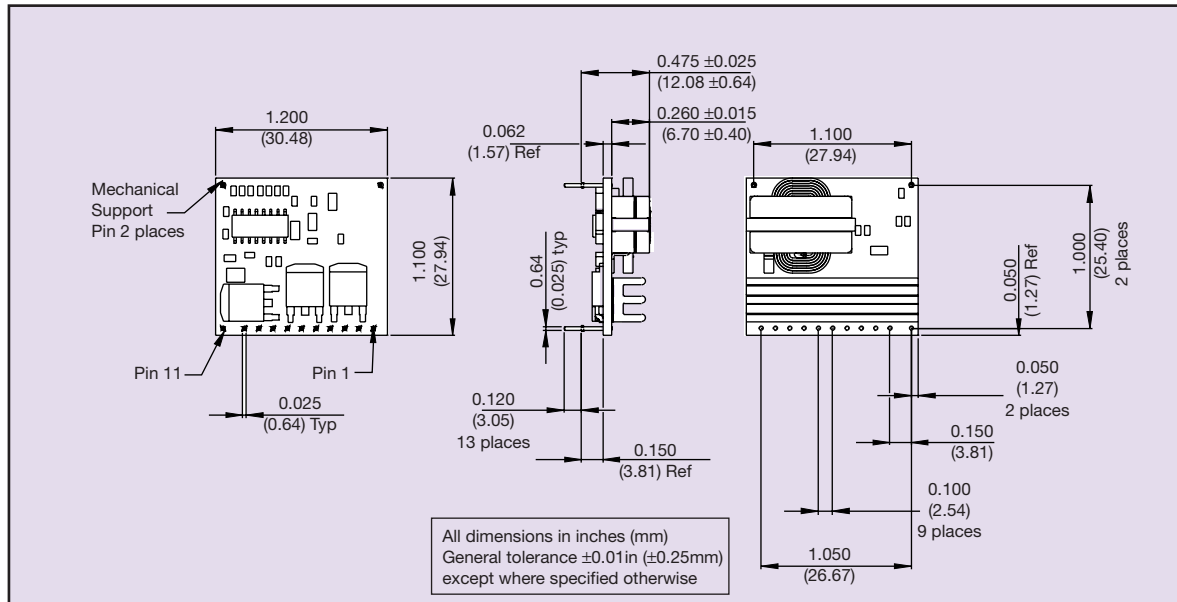


Figure 1: Mechanical Drawing - Horizontal Mount Version

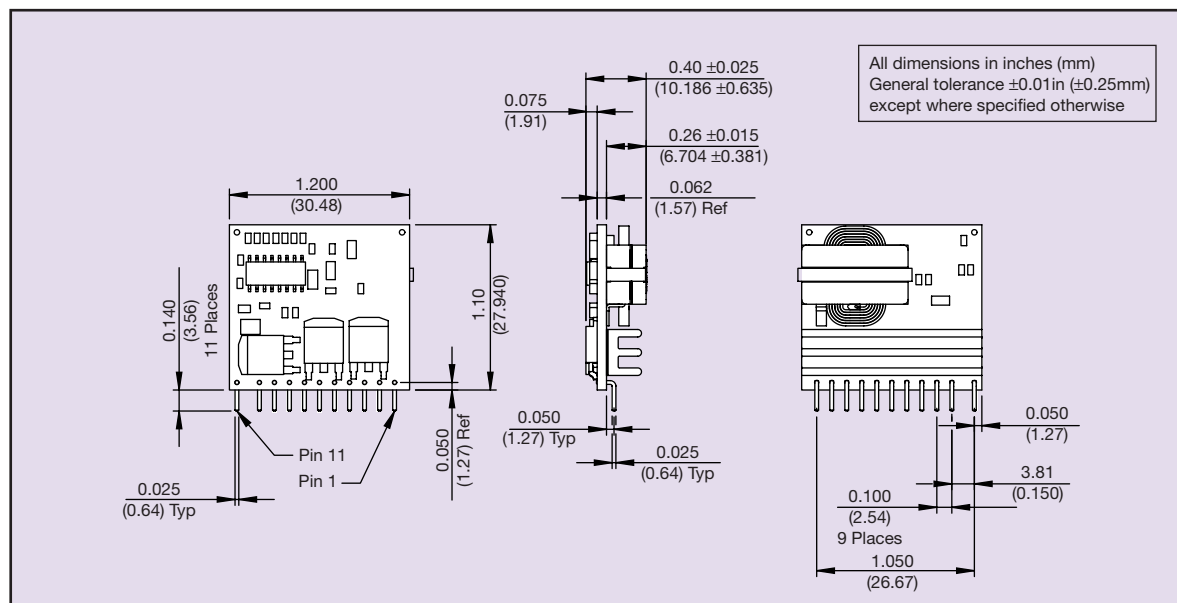


Figure 2: Mechanical Drawing - Vertical Mount Version