

Technical Data

SEL3600 / SEL3700 Series



Description

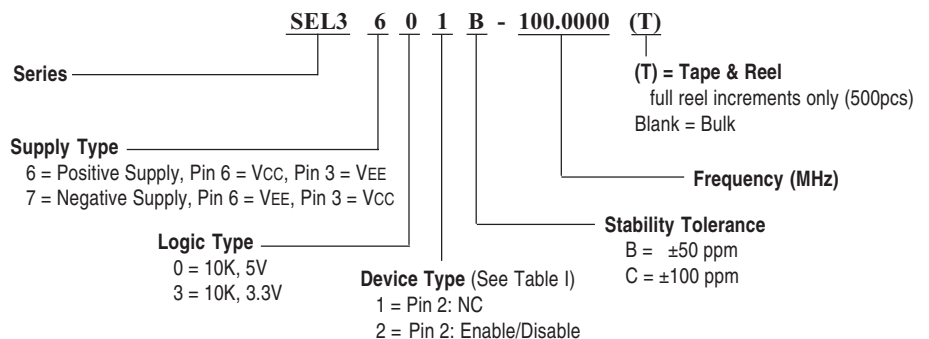
A crystal controlled, high frequency, highly stable oscillator, compatible with 10K ECL Logic. The output can be disabled and wired-OR to facilitate testing or combining multiple clocks. Open emitter output allows the user to adjust termination to optimize matching and performance. Complementary outputs are standard.*

Applications & Features

- Ideal for high resolution graphics & imaging applications
- Provides 10K compatible outputs
- 3.3V PECL version available
- Frequency range is from 33 to 157 MHz, consult factory for frequencies beyond this range
- Disable/wired-OR output feature available
- Standard SMD 6-pin J-lead package
- Available on tape & reel; 24mm tape, 500pcs per reel

Frequency Range:	33 MHz to 157 MHz
Frequency Stability:	±50 or ±100 ppm over all conditions: calibration tolerance, operating temperature, input voltage, load, aging, shock and vibration.
Temperature Range:	Operating: 0 to +70°C Storage: -55 to +125°C
Supply Voltage:	+5.0V or -5.2V or +3.3V PECL
Supply Current:	70mA typ, 100mA max @ 5V, 50mA typ @ 3.3V
Output Drive:	Symmetry: 45/55% max VBB or Complementary Outputs Crossing Rise & Fall Times: 350ps typ, 550ps max, 20% to 80% of the waveform Logic 0: 10K, VCC -1.60V max @ 5V 10K, VCC -1.62V max @ 3.3V Logic 1: 10K, VCC -1.02V min @ 5V 10K, VCC -1.025V min @ 3.3V Load: 50Ω to VCC -2V RMS Period Jitter: 3.5ps max, 1ps max 1σ cycle-to-cycle jitter
Mechanical:	Shock: MIL-STD-883, Method 2002, Condition B Solderability: MIL-STD-883, Method 2003 Terminal Strength: MIL-STD-883, Method 2004, Condition B2 Vibration: MIL-STD-883, Method 2007, Condition A Solvent Resistance: MIL-STD-202, Method 215 Resistance to Soldering Heat: MIL-STD-202, Method 210, Condition I or J
Environmental:	Thermal Shock: MIL-STD-883, Method 1011, Condition A Moisture Resistance: MIL-STD-883, Method 1004

Part Numbering Guide

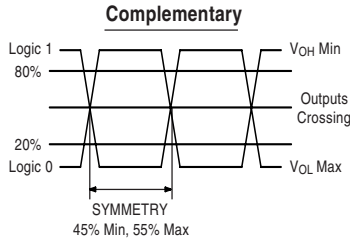


*For internal termination or single output without disable contact factory.

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Output Waveform

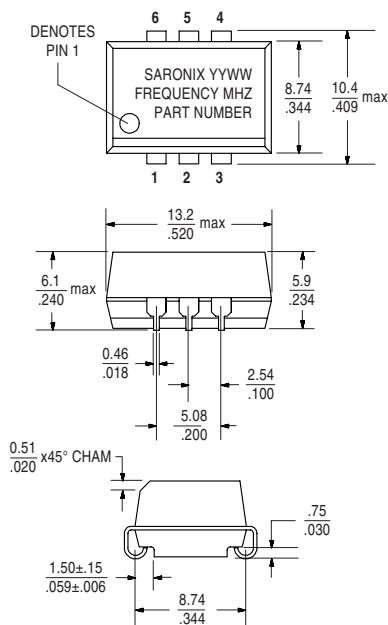


Enable Function Truth Table where applicable (Table I)

TRUTH TABLE				
Pin 2	Positive Supply		Negative Supply	
	Pin 4	Pin 1	Pin 4	Pin 1
Logic 0 or N/C	CLK Output	$\overline{\text{CLK}}$ Output	$\overline{\text{CLK}}$ Output	CLK Output
Logic 1	Logic 0	Logic 1	Logic 1	Logic 0

Enable/Disable Propagation Delay: $10K: (\lceil 1/f \rceil / 2) + 250\text{ps}$

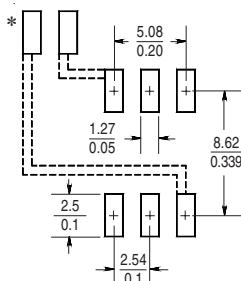
Package Details



Pin Functions:

Pin 1: Output
Pin 2: Enable / Disable or N/C
Pin 3: V_{EE} or V_{CC}
Pin 4: Output
Pin 5: N/C
Pin 6: V_{CC} or V_{EE}

Recommended Land Pattern



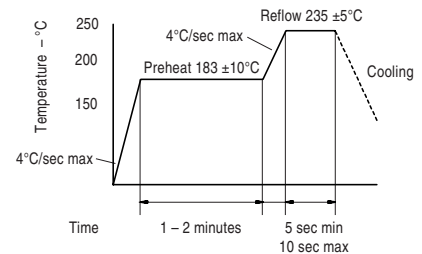
*External high frequency power supply decoupling required

Scale: None (Dimensions in $\frac{\text{mm}}{\text{inches}}$)

Supply Options (Table II)

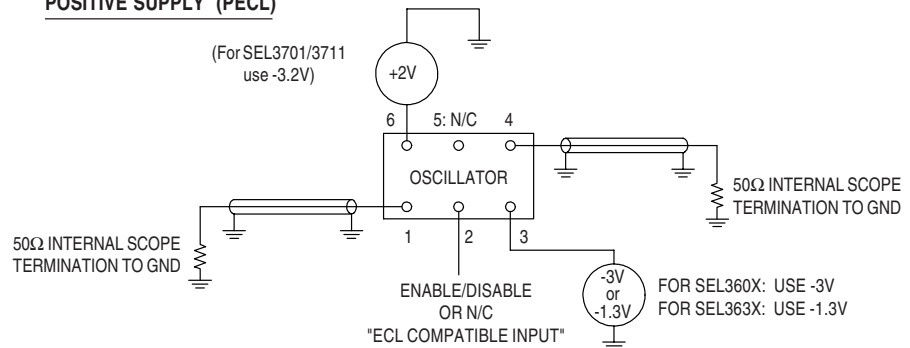
Device Type	Pin 3	Pin 6
SEL36XX	$V_{EE} 0\text{V} / \text{GND}$	$V_{CC} +5\text{V} / +3.3\text{V}$
SEL37XX	$V_{CC} 0\text{V} / \text{GND}$	$V_{EE} -5\text{V} / -3.3\text{V}$

Solder Reflow Guide

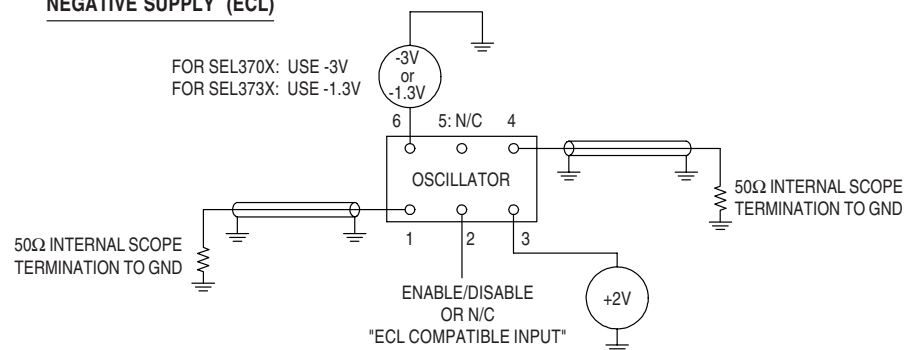


Test Circuits

POSITIVE SUPPLY (PECL)



NEGATIVE SUPPLY (ECL)



All specifications are subject to change without notice.

DS-165 REV E