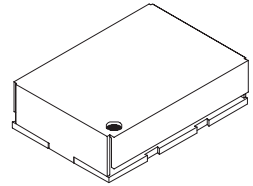




SM1145BD CMOS Series



- CMOS with Enable/ Disable, 3rd Overtone Crystal Used
- Low Jitter
- 4 Pad Surface Mount Clock Oscillator
- Solder Pad Compatible to our SM11 Series, Epson SG615 & SG8002J

70.00 MHz – 170.00 MHz

Consult factory for **higher** frequencies

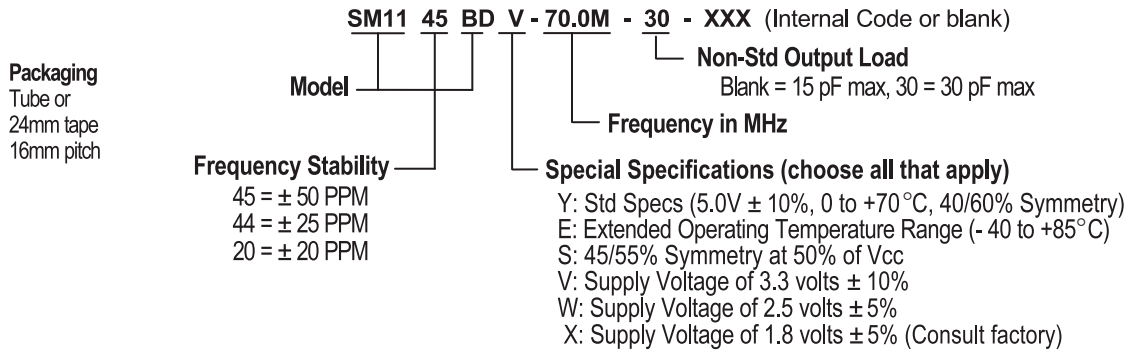
Standard Specifications

Overall Frequency Stability	SM1145BD: ± 50 PPM, SM1144BD: ± 25 PPM, SM1120BD: ± 20 PPM over Operating Temp. Range
Operating Temperature Range	0 to +70°C is standard, but can be extended to -40 to +85°C for certain frequencies
Supply Voltage (Vcc)	5.0 volts, 3.3 volts, and 2.5 volts available, consult factory for 1.8 volts
Symmetry (Duty Cycle)	40/60 to 60/40% is standard, but 45/55% at 50% of Vcc is also available (see Waveform 1)
Logic Levels	Logic "1" 90% of Vcc MIN; Logic "0" 10% of Vcc MAX
Jitter	1 pS RMS maximum, from 12 kHz to 20 MHz from carrier
Output Load	Standard load is 15pF (typ. 1 ASIC) maximum, see Test Circuit 3 (consult factory for heavier loads)
Enable/Disable Option (E/D)	Output enabled when Pin #1 is open or at Logic "1"; Output disabled when Pin #1 is at Logic "0".

Frequency Range (MHz)	Max. Supply Current I _{cc} (mA) w/ 15pF load		Max. Rise and Fall Time Tr & Tf (nS) w/ 15pF load	
	2.5V, 3.3V	5.0V	2.5V	3.3V, 5.0V
70.000 – 79.999	30	45	3.5	3.0
80.000 – 110.000	40	80	2.5	1.5
110.001 – 119.999	50	90	2.5	1.0
120.000 – 170.000	60	95	1.5	1.0

Part Numbering Guide

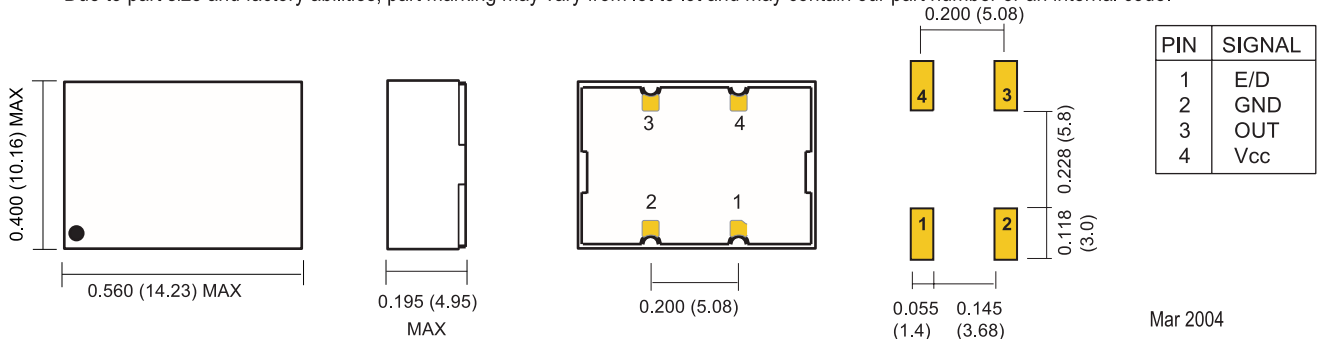
Portions of the part number that appear after the frequency may not be marked on part (C of C provided)



Consult factory for available frequencies and specs. Not all options available for all frequencies. A special part number may be assigned. Frequency Stability is inclusive of frequency shifts due to calibration, temperature, supply voltage, shock, vibration and load

Mechanical: inches (mm) not to scale Solder Pads

Due to part size and factory abilities, part marking may vary from lot to lot and may contain our part number or an internal code.



Mar 2004