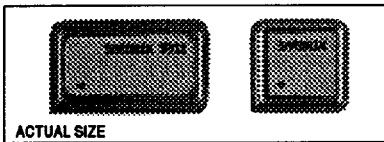
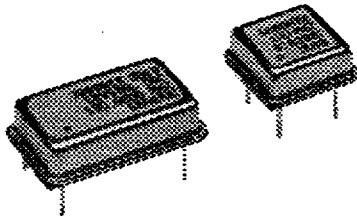


Technical Data

STA Series



Description

A crystal controlled, low-current oscillator providing precise rise and fall times to drive HCMOS/ACMOS and 50 Ohm loads. The tri-state function enables the output to go high impedance. Available in either a 14 or an 8 pin DIP compatible, resistance welded, all metal case. Pin 7 (or Pin 4) is grounded to case to reduce EMI.

Applications & Features

- Suited for use with new HCMOS/ACMOS MPU's
- Very broad frequency range 250 kHz to 110 MHz
- High Drive AC MOS and HCMOS capability
- Tri-State output
- Reduced EMI circuitry
- Short circuit protected output
- Also available as a 5V version
- Also available in plastic, surface mount STA/STT Series Type F package, see separate data sheet.

Frequency Range:	250 kHz to 110 MHz	
Frequency Stability:	±25, ±50 or ±100 ppm over all conditions: calibration tolerance, operating temperature, input voltage change, load change, aging, shock and vibration.	
Temperature Range:	Operating: 0°C to +70°C (extended temperature range available) Storage: -55°C to +125°C	
Supply Voltage:	Operating: 3.3V ±10% Absolute Maximum: +7 VDC	
Supply Current:	typical mA	maximum mA
to 80 MHz, 3.3V:	25	35
80 – 110 MHz, 3.3V:	30	45

Output Drive:

ACMOS

Symmetry:	@ 0.5 VDD, see Part Numbering Guide on Page 2
Rise & Fall Times:	20% to 80% VDD, see Part Numbering Guide
Logic 0:	10% VDD max
Logic 1:	90% VDD min
Output Load:	50Ω AC load

Mechanical:

Shock:	MIL-STD-883, Method 2002, Condition B
Solderability:	MIL-STD-883, Method 2003
Terminal Strength:	MIL-STD-883, Method 211, Conditions A and C
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 B

Environmental:

Gross Leak Test:	MIL-STD-883, Method 1014, Condition C
Fine Leak Test:	MIL-STD-883, Method 1014, Condition A2 <5 x 10 ⁻⁸ ATM cc/sec
Thermal Shock:	MIL-STD-883, Method 1011, Condition A
Moisture Resistance:	MIL-STD-883, Method 1004

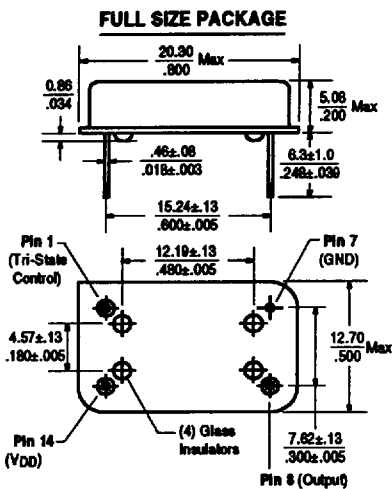
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Technical Data

STA Series

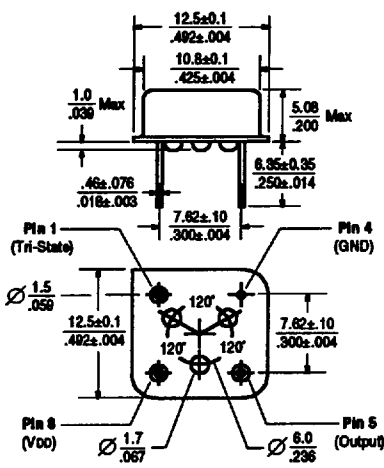
Package Details



Standard Marking Format



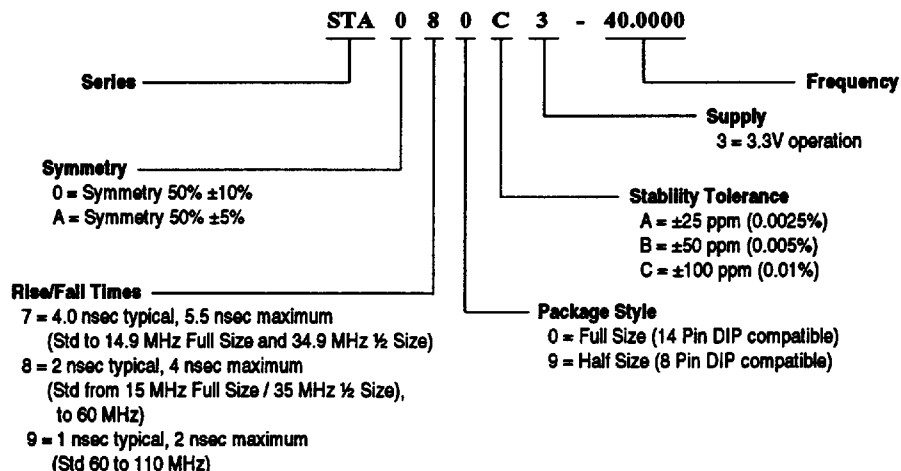
HALF SIZE PACKAGE



Standard Marking Format



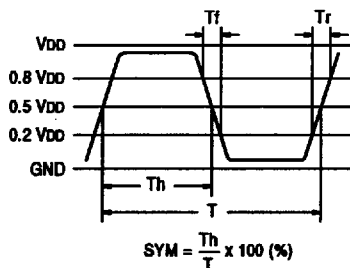
Part Numbering Guide



* Non-standard r/f times available on some models. Consult factory.

Example PN: STA090C3 - 100.0000

Output Waveform

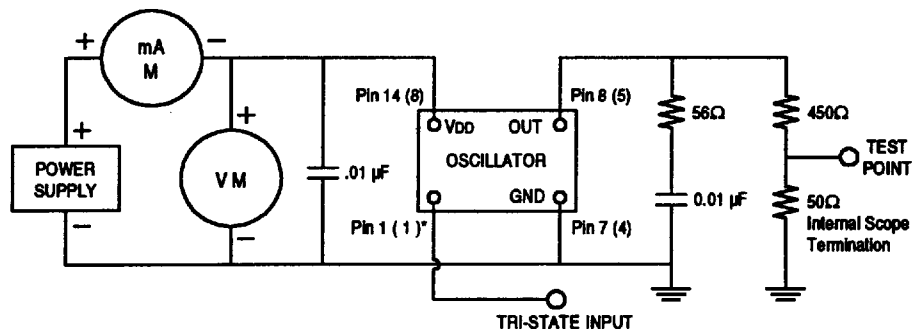


Tri-State Logic Table

Pin 1 Input	Output Standard Logic	Output Reverse Logic
Logic "1" or NC	Oscillation	High Impedance
Logic "0" or GND	High Impedance	Oscillation

Required Input Levels on Pin 1:
 Logic "1" = 2.0V min
 Logic "0" = 0.8V max

Test Circuit



* () Indicates pin numbers for half-size package

ACMOS TEST CIRCUIT

49375 N

All specifications are subject to change without notice.

Scale: None (Dimensions in mm / inches)

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