




**Data Sheet**



Product Category: SMD Oscillators

Series Number	Package	Description	Last Modified
493	6 Pad PCB Base	PECL Output	Jan. 01 2007

**FEATURES**

- Wave form symmetry of 45/55%
- PECL / LVPECL output
- Industry standard 6 Pad PCB SMD Package
- RoHs / Lead Free compliant 

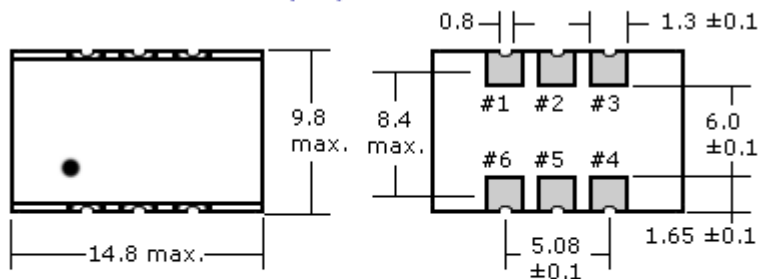


**OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS**

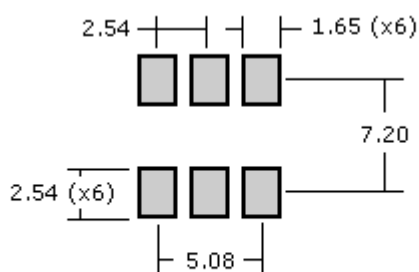
PARAMETERS	CONDITIONS	CHARACTERISTICS		UNITS
<b>Output Logic</b>	-	Positive ECL Square Wave (PECL)		-
<b>Input Voltage (VDD)</b>	-	3.3 ±5%	5.0 ±5%	V
<b>Frequency Range (f<sub>O</sub>)</b>	-	19.440 ~ 180.000		MHz
<b>Operating Temperature (T<sub>OPR</sub>)</b>	-	0 ~ +70 (Std.) / -40 ~ 85 (Option)		°C
<b>Storage Temperature (T<sub>STG</sub>)</b>	-	-55 ~ +125		°C
<b>Overall Frequency Stability</b>	-	±20, ±25, ±50, ±100 max.		ppm
	(a) Frequency Tolerance	Inclusive of Overall Stability		-
	(b) Temperature Stability	Inclusive of Overall Stability (Operating Temperature)		-
	(c) Input Voltage Stability	Inclusive of Overall Stability (VDD ±5%)		-
	(d) Load Stability	Inclusive of Overall Stability (RL ±5%)		-
<b>Input Current (I<sub>DD</sub>)</b>	-	80 max.	120 max.	mA
<b>Aging</b>	@ 25°C	±3 max.		ppm/Y
<b>Rise Time (T<sub>R</sub>)</b>	20% to 80% of Waveform	1 max.		nS
<b>Fall Time (T<sub>F</sub>)</b>	20% to 80% of Waveform	1 max.		nS
<b>Output Voltage High "1" VOH</b>	PECL	Vcc - 1.025 min.	Vcc - 0.88 min.	Vdc
<b>Output Voltage Low "0" VOL</b>	PECL	Vcc - 1.620 max.	Vcc - 1.555 max.	Vdc
<b>Load</b>	Vdd - 2.0Vdc	50		Ohms
<b>Duty Cycle</b>	50% of Waveform	50 ±10 (Std.) / 50 ±5 (Option)		%
<b>Jitter</b>	RMS	1 max.		pS

**PIN CONNECTIONS**

**PACKAGE DIMENSIONS (mm)**



#1	Tri-State or No Connection
#2	No Connect or Tri-State
#3	Ground
#4	Output
#5	Complimentary Output
#6	+Vcc



Suggested Solder Pad Layout

**PART NUMBER GUIDE**

Series Number	Frequency	Voltage Supply Option	Frequency Tolerance & Stability (max.)	Operating Temp. (°C)	Duty Cycle	Tri-State Pin Position
<b>493</b>	<b>- 28.0 M</b>	<b>- 3</b>	<b>E</b>	<b>N</b>	<b>- T</b>	<b>TS1</b>
Oscilent SMD Oscillators	Enter your freq. e.g. <b>28.0M = 28.00 MHz</b>	5 = 5VDC 3 = 3.3VDC	D = ±100 PPM E = ±50 PPM F = ±25 PPM G = ±20 PPM	Blank* = 0~+70 D = -20~+70 K = -30~+85 N = -40~+85 P = 0~+85	Blank* = 50±10% T = -50±5%	TS1 = Pin # 1 TS2 = Pin # 2

**NOTE:** - Deviations on all parameters available. Please consult Oscilent for details.

**DEFINITIONS:** - Click on the characteristic names above, for definitions of the particular characteristic.

**\*STANDARDS:** - "Blank" part number selections, indicate standard variables for the particular characteristic.

**PACKAGING:** - Add **-TR** for Tape/Reel. Click [here](#) for tape/reel specifications

**Oscilent Corporation** - CALL **949.252.0522**

**Series No.:** 493

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