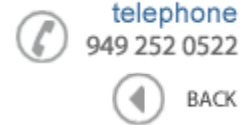




Data Sheet



Product Category: SMD Oscillators

Series Number	Package	Description	Last Modified
491	4 Pad PCB	PECL Output	Jan. 01 2002

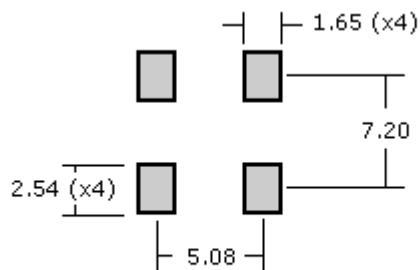
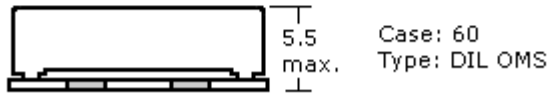
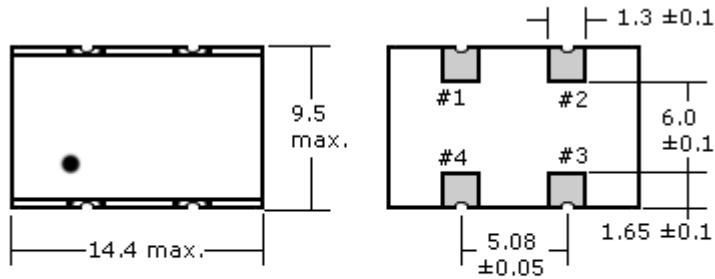
FEATURES

- Wave form symmetry of 40/60%
- PECL output
- Industry standard 4 Pad PCB SMD Package
- RoHs / Lead Free compliant



OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	CHARACTERISTICS		UNITS
Output Logic	-	Positive ECL Square Wave (PECL)		-
Input Voltage (VDD)	-	3.3 $\pm$ 10%	5.0 $\pm$ 10%	VDC
Frequency Range (f_o)	-	19.440 ~ 180.0 (Fund, Third, Fifth / UM-1)		MHz
Operating Temperature (T_{OPR})	-	0 ~ +70 (Std.) / -40 ~ 85 (Option)		$^{\circ}$ C
Storage Temperature (T_{STG})	-	-55 ~ +125		$^{\circ}$ C
Overall Frequency Stability	-	$\pm$ 20 (0 ~ +70 $^{\circ}$ C Only), $\pm$ 25, $\pm$ 50, $\pm$ 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 $\pm$ 5%)		-
	(d) Load Stability	Inclusive of Overall Stability (RL $\pm$ 5%)		-
Input Current (I_{DD})	-	80 max.	120 max.	mA
Aging	@ 25 $^{\circ}$ C	$\pm$ 1 max.		PPM/Y
Rise Time (T_R)	20% to 80% of Waveform	2 max.		nS
Fall Time (T_F)	20% to 80% of Waveform	2 max.		nS
Output Voltage High "1" VOH	PECL	VDD - 1.025 min.		VDC
Output Voltage Low "0" VOL	PECL	VDD - 1.620 max.		VDC
Load	-	50		Ohms
Duty Cycle	50% of Waveform	50 $\pm$ 10 (Std.) / 50 $\pm$ 5 (Option)		%
Start-Up Time (T_S)	-	10 max.		mS
Jitter	RMS	3.5 max.		ps

PACKAGE DIMENSIONS (mm)

Suggested Solder Pad Layout

PIN CONNECTIONS	
#1	Complimentary Output (CO) OR No Connection (NC)
#2	Ground
#3	Output
#4	Vdd

PART NUMBER GUIDE

Series Number	Frequency	Voltage Supply Option	Frequency Tolerance & Stability (max.)	Operating Temp. (°C)	Duty Cycle	Pin 1 Connection
491	- 28.0 M	- 5	D	N	- T	CO
Oscilent SMD Oscillators	Enter your freq. e.g. 28.0M = 28.00 MHz	5 = 5VDC 3 = 3.3VDC	D = ±100 PPM E = ±50 PPM F = ±25 PPM G = ±20 PPM	Blank* = 0~+70 N = -40~+85	Blank* = 50±10% T = -50±5%	CO = Complimentary Output NC = No Connection
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						

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