




Data Sheet



Product Category: SMD Oscillators

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

FEATURES

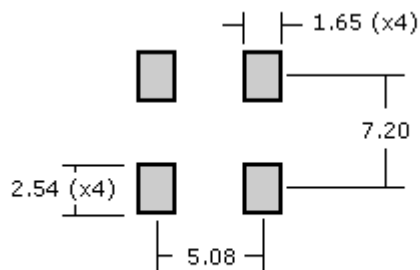
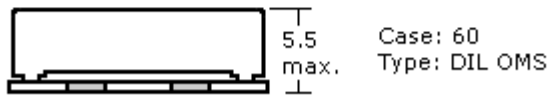
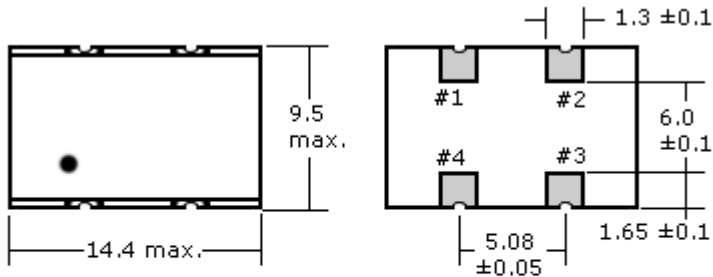
- Wave form symmetry of 40/60%
- PECL output
- Industry standard 4 Pad PCB SMD Package
- RoHs / Lead Free compliant 



OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

| PARAMETERS | CONDITIONS | CHARACTERISTICS | | UNITS |
|---|-----------------------------|--|----------|-------|
| Output Logic | - | Positive ECL Square Wave (PECL) | | - |
| Input Voltage (VDD) | - | 3.3 ±10% | 5.0 ±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) | | °C |
| Storage Temperature (T _{STG}) | - | -55 ~ +125 | | °C |
| Overall Frequency Stability | - | ±20 (0 ~ +70°C Only), ±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%) | | - |
| Input Current (I _{DD}) | - | 80 max. | 120 max. | mA |
| Aging | @ 25°C | ±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 ±10 (Std.) / 50 ±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 |
| <p>NOTE: - Deviations on all parameters available. Please consult Oscilent for details.</p> <p>DEFINITIONS: - Click on the characteristic names above, for definitions of the particular characteristic.</p> <p>*STANDARDS: - "Blank" part number selections, indicate standard variables for the particular characteristic.</p> <p>PACKAGING: - Add -TR for Tape/Reel. Click here for tape/reel specifications</p> | | | | | | |

Oscilent Corporation - CALL **949.252.0522**Series No.: **491**18195 East McDermott Street . Building D . Irvine . CA 92614 . USA
Fax: 949.252.0599 . E-Mail: Sales@Oscilent.com