

HCMOS/TTL OSCILLATOR

Ceramic Surface Mount *EC25* Series 5.0V_{DC}



PART NUMBERING GUIDE

EC25 00 ET T TS Y - 40.000M TR

FREQUENCY TOLERANCE / STABILITY

00=±100ppm Maximum (Standard)
45=±50ppm Maximum, 25=±25ppm Maximum
20=±20ppm Maximum

OPERATING TEMPERATURE RANGE

Blank=-10°C to 70°C (Standard)
ET=-40°C to 85°C

DUTY CYCLE

Blank=50 ±10% (Standard), T=50 ±5%

PACKAGING OPTIONS

Blank=Bulk (Standard),
TR=Tape and Reel (pg. L1)

FREQUENCY

LOAD DRIVE CAPABILITY

Blank=10LSTTL or 15pF/30pF HCMOS Load Maximum
Y=10TTL or 50pF HCMOS Load Maximum

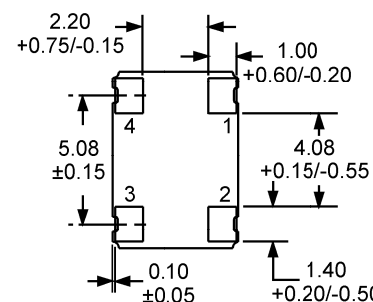
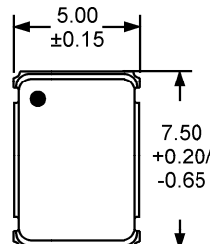
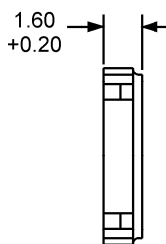
ELECTRICAL SPECIFICATIONS

Marking Specifications See pg. G2, Group I

Frequency Range		1.544MHz to 125.000MHz
Operating Temperature Range	±100ppm or ±50ppm ±25ppm or ±20ppm	-10°C to 70°C or -40°C to 85°C -10°C to 70°C
Storage Temperature Range		-55°C to 125°C
Supply Voltage (V_{DD})		5.0V _{DC} ±10%
Input Current	1.544MHz to 36.000MHz 36.001MHz to 70.000MHz 70.001MHz to 125.000MHz	20mA Maximum 55mA Maximum 70mA Maximum
Frequency Tolerance / Stability	Inclusive of Operating Temperature Range, Supply Voltage, and Load	±100ppm, ±50ppm, ±25ppm or ±20ppm Maximum
Output Voltage Logic High (V_{OH})	w/TTL Load w/HCMOS Load	2.4V _{DC} Minimum V _{DD} -0.5V _{DC} Minimum
I_{OH}	Load Drive Option "Blank" Load Drive Option "Y"	-4mA ≤ 36.000MHz, -16mA > 36.000MHz -16mA ≤ 70.000MHz
Output Voltage Logic Low (V_{OL})	w/TTL Load w/HCMOS Load	0.4V _{DC} Maximum 0.5V _{DC} Maximum
I_{OL}	Load Drive Option "Blank" Load Drive Option "Y"	+4mA ≤ 36.000MHz, +16mA > 36.000MHz +16mA ≤ 70.000MHz
Rise / Fall Time	10% to 90% of Waveform w/30pF HCMOS Load; 0.4V _{DC} to 2.4V w/10LSTTL Load 10nSec Max. ≤ 70.000MHz 10% to 90% of Waveform w/15pF HCMOS Load; 0.4V _{DC} to 2.4V w/10LSTTL Load 5nSec Max. > 70.000MHz 10% to 90% of Waveform w/50pF HCMOS Load; 0.4V _{DC} to 2.4V w/10TTL Load 5nSec Max. ≤ 70.000MHz	
Duty Cycle	at 50% of Waveform w/HCMOS Load 1.4V _{DC} w/TTL Load at 50% of Waveform w/TTL Load or w/HCMOS Load at 50% of Waveform w/TTL or w/HCMOS Load at 50% of Waveform w/HCMOS Load	50 ±10% (Standard) ≤ 70.000MHz 50 ±10% (Standard) > 70.000MHz 50 ±5% (Optional) ≤ 70.000MHz 50 ±5% (Optional) > 70.000MHz
Load Drive Capability	≤ 70.000MHz > 70.000MHz ≤ 70.000MHz (Optional)	10LSTTL Load or 30pF HCMOS Load 10LSTTL Load or 15pF HCMOS Load 10TTL Load or 50pF HCMOS Load
Pin 1 Tri-State Input Voltage	No Connection V _{IH} V _{IL}	Enables Output +2.0V _{DC} Minimum to Enable Output +0.8V _{DC} Maximum to Disable Output
Aging (at 25°C)		±5ppm / year Maximum
Start Up Time		10mSeconds Maximum
Absolute Clock Jitter		±100pSeconds Maximum
One Sigma Clock Period Jitter		±25pSeconds Maximum

MECHANICAL DIMENSIONS

Environmental / Mechanical Specifications See pg. H2, Group E



Dimensions in mm

Pin 1: Tri-State	Pin 3: Output
Pin 2: Case Ground	Pin 4: Supply Voltage

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Specifications subject to change without notice. • Contact factory for latest revision • 1/99 • (OS29)