



瑪居禮電波工業股份有限公司 MERCURY ELECTRONIC IND. CO., LTD.

TEL: 886-2-2406-2779 FAX: 886-2-2496-0769

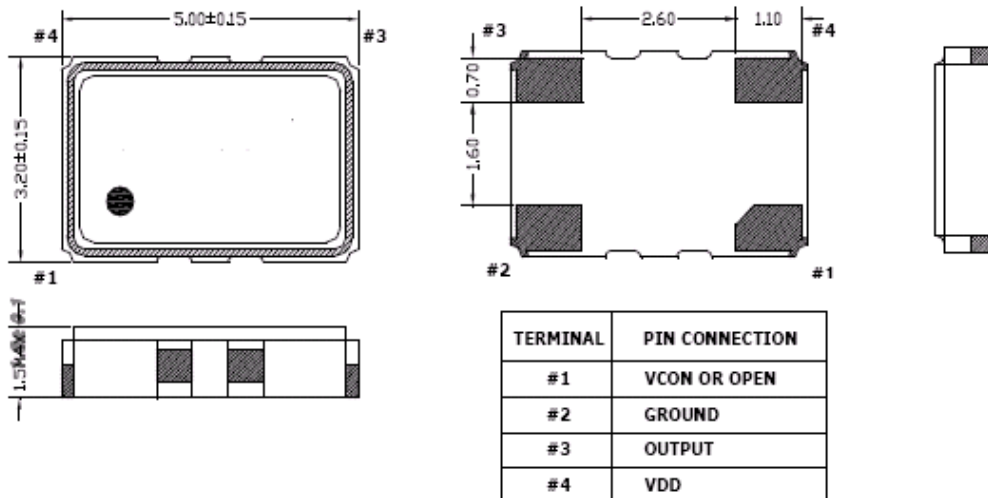
石英振盪器規格確認書 CRYSTAL OSCILLATOR SPECIFICATION CONFIRMATION (VCTCXO)

DATE: 10/14/2010

S.C. No.: A01014-07

Customer	Piezotron
Mercury Part No.	VM53T33-20.000-2.5/-30+75, VM53T33-16.384-2.5/-30+75
Frequency	20.000 MHz / 16.384 MHz
Holder Type	VM53, SMD 5x7, RoHS compliant
Input Voltage	+3.3 V +/-10%
Output Wave Form	TTL/CMOS output, square wave
Initial Frequency	+/- 1.5 ppm at 25°C, Vc= +1.5V
Frequency Stability	
Vs Temperature	+/- 2.5 ppm from -30 to +75°C
Vs Aging	+/- 1.0 ppm max. for the first year at 25°C
Vs Voltage Change	+/- 0.3 ppm max. for a +/- 5% Input Voltage Change
Vs Load Change	+/- 0.3 ppm max. for a +/- 10% loading condition Change
Operating Temperature Range	-30 to +75°C
Voltage Control	+/- 6 ppm min. (+1.5V +/- 1.0V)
Current Consumption	10 mA max.
Output Load	15 pF
Output Voltage Level	Logic HIGH "1": 2.4V min. (TTL), 90% V _{DD} min. (HCMOS) Logic LOW "0": 0.4V max. (TTL), 10% V _{DD} max. (HCMOS)
Duty Cycle	50% +/- 5% at 50% V _{DD}
Start-Up Time	5 m Sec. typ.; 10 m sec. max.
Rise Time and Fall Time	Tr: 1.4 nSec typical, Tf: 2.0 nSec typical , 20% to 80% of waveform (HCMOS)
Phase Noise (typical)	-80 dBc/Hz @ 10 Hz, -118 dBc/Hz @ 100Hz, -135 dBc/Hz @ 1 KHz -140 dBc/Hz @ 10 KHz, -143 dBc/Hz @ 100 KHz
Storage Temperature Range	-40 to +85°C
Reflow Condition	260°C max. for 10 sec.

PACKAGE DIMENSIONS: unit: mm



CONFIRMED SIGNATURE

AUTHORIZED SIGNATURE

Marty Jen