

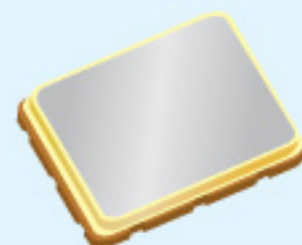
CRYSTAL OSCILLATOR



HUAFENG
CRYSTAL

HCO-105 Series

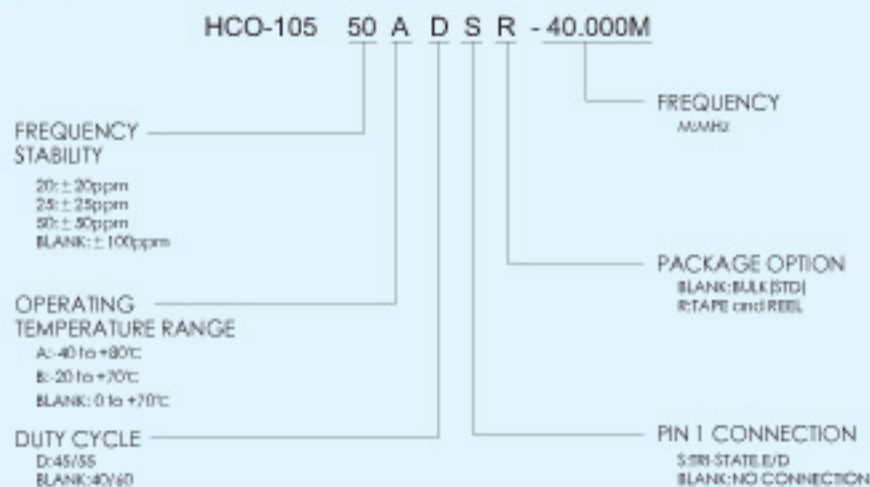
- Ceramic SMD package
- 5.0V supply voltage
- HCMOS/TTL output
- Stability to ± 20 ppm
- Tri-state function available
- Reflow soldering is possible
- Available on tape and reel



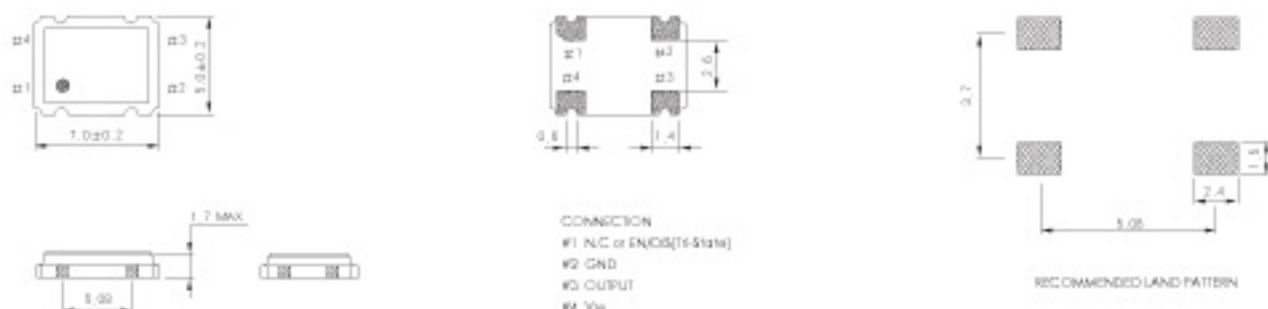
ELECTRICAL SPECIFICATIONS

Frequency Range		1.000 to 106.250MHz
Operating Temperature Range	$\pm 100, \pm 50$ ppm or $\pm 25, \pm 20$ ppm	0 to +70°C or -40 to +85°C 0 to +70°C
Storage Temperature Range		-55 to +125°C
Frequency Tolerance/Stability	Inclusive of Operating Temperature Range, Supply Voltage, and Load	$\pm 100, \pm 50$ ppm or $\pm 25, \pm 20$ ppm Max
Supply Voltage (VDD)		5.0Vdc $\pm 10\%$
Input Current	1.000 to 34.999MHz 35.000 to 60.000MHz 60.001 to 99.999MHz 100.000 to 106.250MHz	25mA Max 40mA Max 60mA Max 80mA Max
Output Voltage Logic High(VOH)	w/TTL Load w/HCMOS Load	2.4Vdc Min 90% of VDD Min
Output Voltage Logic Low(VOL)	w/TTL Load w/HCMOS Load	0.4Vdc Max 10% of VDD Max
Rise/Fall Time	1.000 to 34.999MHz 35.000 to 99.999MHz 100.000 to 106.250MHz	10nsec Max 5nsec Max 2.5nsec Max
Duty Cycle	at 50% of Waveform w/HCMOS Load or 1.4Vdc w/TTL Load	50 \pm 10%[STD] 50 \pm 5%[Optional]
Load Drive Capability	1.000 to 70.000MHz 70.001 to 106.250MHz	10TTL Load or 50pF HCMOS Load 10TTL Load or 15pF HCMOS Load
Pin 1 Tri-State Input Voltage	No connection V _{IH} \geq 2.0Vdc V _{IL} \leq 0.8Vdc	Enables Output Enables Output Disables Output:High Impedance
Aging(at 25°C)		± 3 ppm, ± 5 ppm/year Max
Start-up Time		10msec Max
Period Jitter:Absolute		± 100 psec Max
Period Jitter:One Sigma		± 25 psec Max

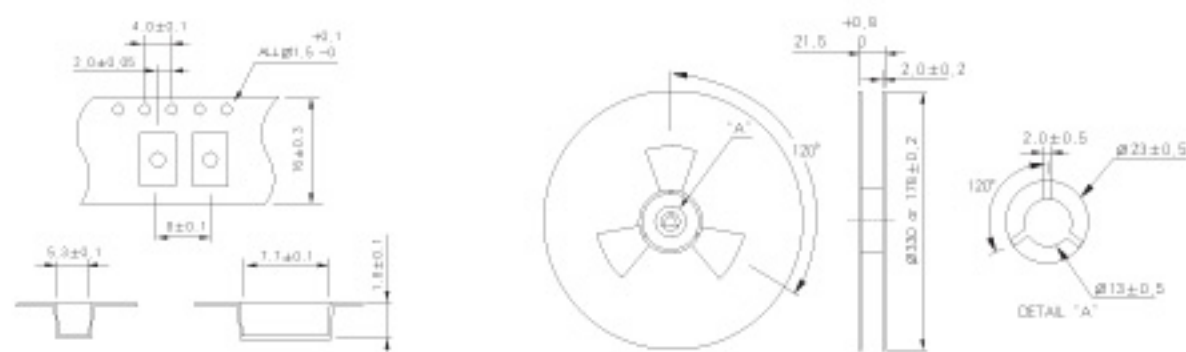
PART NUMBERING GUIDE



MECHANICAL DIMENSIONS



TAPE AND REEL DIMENSION



ENVIRONMENTAL / MECHANICAL SPECIFICATIONS

PARAMETER	SPECIFICATIONS
Seal Integrity	Bubble test in Perfluorocarbon at +125°C ± 5°C for 60 seconds minimum.
Solderability	Sn63 Solder dip at +230°C ± 5°C for 5 seconds/95% coverage.
Marking Permanency	10 Strokes with brush after 1 minute soak in solvent, 3 times.
Shock	Random drop on hard wooden plate 3 times from a height of 50cm.
Thermal Shock	10 Cycles from -55°C to 125°C