



# SMD CRYSTAL OSCILLATOR



## D3ST Series 3.0\*2.5 LVDS OSC



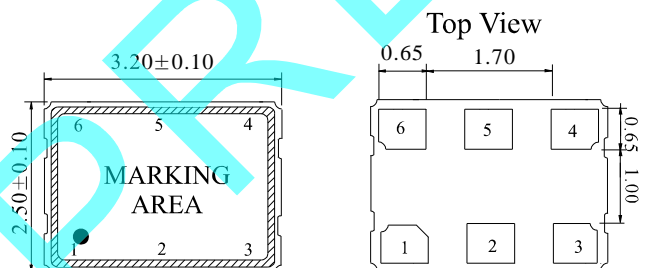
### FEATURES

- 3.2\*2.5\*1.2mm package
- Tri-State function available
- Low Jitter and Noise
- LVDS output
- Ideal for Fiber-optic communication applications, FTTH and SONET/SDH applications, Sever, FCHBA, Fibre Channel, Gigabit Ethernet, and Serial ATA

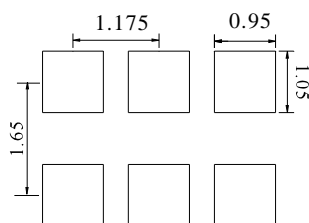
### Electrical Specifications

Parameter	Condition	D3ST
Frequency Range	F <sub>0</sub>	25~156.25MHz
Output Specification		LVDS
Frequency Stability*	All Condition	±25ppm, ±50ppm, ±100ppm
Operating Temperature Range	T <sub>OPR</sub>	-20°C~+70°C (-40°C~+85°C option)
Storage Temperature Range	T <sub>STG</sub>	-55°C~+125°C
Power supply Voltage	V <sub>DD</sub>	3.3V+/-5%      2.5V+/-5%
Supply Current	I <sub>DD</sub>	80mA Max
Output Symmetry	Sym	At ½V <sub>pp</sub> 40/60%(45/55% Option)
Rise time	T <sub>r</sub>	20%V <sub>pp</sub> ~80%V <sub>pp</sub> 1nS Max
Fall Time	T <sub>f</sub>	80%V <sub>pp</sub> ~20%V <sub>pp</sub> 1nS Max
Output Voltage	V <sub>OH</sub> V <sub>OL</sub>	1.4V Typ. 1.1V Typ.
Differential output voltage	V <sub>OD</sub>	350mV Typ.
Differential output error	ΔV <sub>OD</sub>	40mV Typ.
Offset voltage	V <sub>OS</sub>	1.25V Typ.
Offset error	ΔV <sub>OS</sub>	50mV Typ.
Output Load		100 Ω Output - comp. output
Integrated phase jitter (RMS)	Integrated 12KHz to 20MHz	1pS Max
Start Time	T <sub>s</sub>	10mS Max
Aging(First Year)	25°C ±3°C	±2ppm Max
Pin 1, tri-state function		Pin 1=H or open....Output active at pin 4,5 Pin 1=L.....high impedance at pin 4,5
Packing Unit		1000pcs/reel

### Mechanical Dimensions(mm)

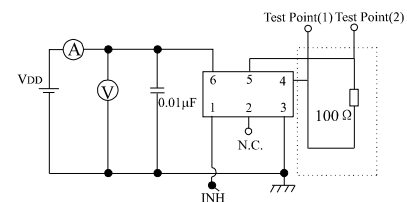


Recommended Solder Pattern

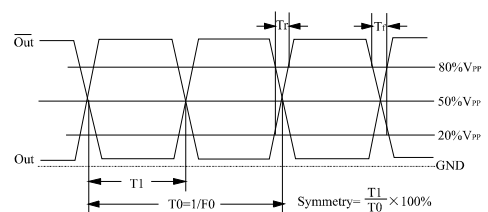


Pin	Connection
#1	Tri-State
#2	N.C.
#3	GND
#4	Comp. Output
#5	Out
#6	V <sub>DD</sub>

### Test Circuit



### Output Waveform



\*\*Note: 0.01uF bypass capacitor should be placed between V<sub>DD</sub>(Pin6) and GND(Pin3) to Minimize power supply line noise