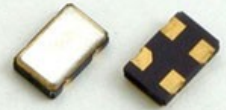


## MINIATURE SMD HCMOS/TTL OSCILLATOR (5.0 x 3.2 x 1.2mm)

### FEATURES:

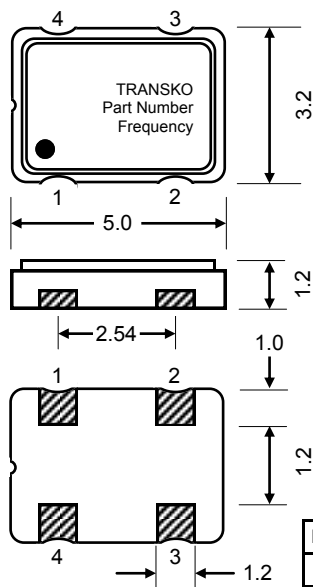
- WIDE FREQUENCY RANGE
- LOW VOLTAGE / LOW CURRENT
- LOW COST

RoHS  
Compliant



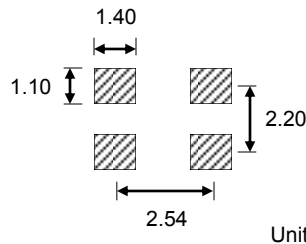
MODEL	TSM53		
SUPPLY VOLTAGE	1.8V ~ 2.5V	3.3V	5.0V
FREQUENCY RANGE	1.000MHz ~ 125.000MHz	1.000MHz ~ 200.000MHz	1.000MHz ~ 125.000MHz
FREQUENCY STABILITY*	± 10ppm ~ ± 100ppm*		
OUTPUT	HCMOS/TTL		
OPERATING TEMPERATURE	0 to 70°C, Option: -40 to 85°C		
INPUT CURRENT	12mA max: 1.000MHz ~ 24.999MHz 15mA max: 25.000MHz ~ 49.999MHz 20mA max: 50.000MHz ~ 69.999MHz 30mA max: 70.000MHz ~ 125.000MHz	15mA: 1.000MHz ~ 24.999MHz 20mA: 25.000MHz ~ 49.999MHz 30mA: 50.000MHz ~ 69.999MHz 60mA: 70.000MHz ~ 200.000MHz	20mA: 1.000MHz ~ 24.999MHz 30mA: 25.000MHz ~ 49.999MHz 45mA: 50.000MHz ~ 69.999MHz 60mA: 70.000MHz ~ 125.000MHz
DUTY CYCLE	40/60%, Option: 45/55% (1/2VDD)		
RISE TIME	7nS max (20%VDD ~ 80%VDD)	8nS max (20%VDD ~ 80%VDD)	10nS max (20%VDD ~ 80%VDD)
FALL TIME	7nS max (80%VDD ~ 20%VDD)	8nS max (80%VDD ~ 20%VDD)	10nS max (80%VDD ~ 20%VDD)
OUTPUT VOLTAGE VoH / VoL	CMOS level: 90% VDD min. / 10% VDD max. TTL level: 0.4V min. / 2.4V max.		
OUTPUT LOAD	15pF max (15pF typical)	30pF max (15pF typical)	50pF max
START UP TIME	10mS max		
AGING	± 3.0ppm max @ 25± 3°C for first year		
PIN# 1 TRISTATE	PN# 1 = H or Open: Output active on pin# 3, PIN#1 = L: High Impedance at pin# 3		

### PACKAGE DIMENSIONS



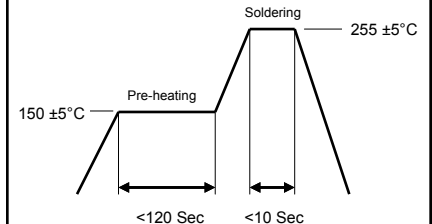
Pin Configuration	
1	En/Disable
2	Ground
3	Output
4	Vcc

### SOLDER PATTERN



Unit : (mm)

### REFLOW PROFILE



Note: Consult factory for detail

### PART NUMBERING GUIDE

