

## ULTRA MINIATURE SMD HCMOS OSCILLATOR (2.0 x 1.6 x 0.9mm)

### FEATURES:

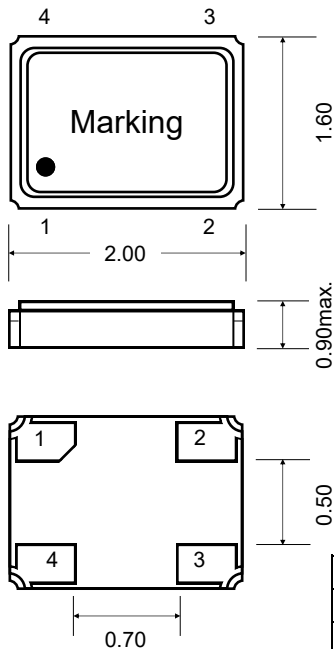
- WIDE FREQUENCY RANGE
- LOW VOLTAGE / LOW CURRENT
- AEC-Q200 QUALIFIED OPTION



### ■ SPECIFICATION

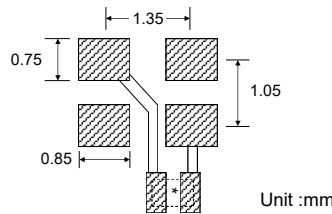
<b>FREQUENCY RANGE</b>		1.000MHz ~ 60.000MHz		1.000MHz ~ 80.000MHz
<b>FREQUENCY STABILITY</b>		±25ppm ~ ±100ppm		
<b>OPERATING TEMPERATURE RANGE</b>		STD: 0°C ~ 70°C, Option: -40°C ~ 85°C (See P/N guide for other options)		
<b>STORAGE TEMPERATURE RANGE</b>		-55°C ~ 125°C		
<b>SUPPLY VOLTAGE ±10%</b>		1.8V <sub>DC</sub>	2.5V <sub>DC</sub>	3.3V <sub>DC</sub>
<b>SUPPLY CURRENT</b>	1MHz ≤ f ≤ 10MHz:	0.4mA typ.	2.0mA typ.	2.0mA typ.
	10MHz < f ≤ 20MHz:	1.0mA typ.	2.0mA typ.	2.0mA typ.
	20MHz < f ≤ 25MHz:	1.0mA typ.	2.0mA typ.	3.0mA typ.
	25MHz < f ≤ 50MHz:	2.0mA typ.	4.0mA typ.	3.0mA typ.
	50MHz < f ≤ 60MHz:	-	4.0mA typ.	5.0mA typ.
	60MHz < f ≤ 80MHz:	-	-	5.0mA typ.
<b>OUTPUT</b>	<b>LOGIC FAMILY</b>	HCMOS		
	<b>LOAD</b>	15pF		
	<b>LEVEL LOGIC '1' (V<sub>OH</sub>)</b>	0.9 x V <sub>DD</sub> min.		
	<b>LEVEL LOGIC '0' (V<sub>OL</sub>)</b>	0.1 x V <sub>DD</sub> max.		
	<b>SYMMETRY(DUTY CYCLE)</b>	STD: 40% / 60% @ 1/2V <sub>DD</sub> level, Option: 45% / 55%		
	<b>RISE AND FALL TIME (Tr/Tf)</b>	3.0nS typ. 10nS max.		
<b>STAND-BY VOLTAGE</b>	<b>ENABLE (V<sub>IH</sub>)</b>	0.7 x V <sub>DD</sub> ≤ V <sub>IH</sub> ≤ V <sub>DD</sub> or N/C		
	<b>DISABLE (V<sub>IL</sub>)</b>	V <sub>IL</sub> ≤ 0.3 x V <sub>DD</sub>		
<b>ENABLE DELAY TIME</b>	10mS max.			
<b>DISABLE DELAY TIME</b>	10mS max.			
<b>AGING @ 25°C ± 3°C</b>	±3.0ppm / 1 <sup>st</sup> year max.			
<b>PHASE JITTER RMS (12kHz ~ 20MHz)</b>	1.0pS max.			

### ■ PACKAGE DIMENSIONS



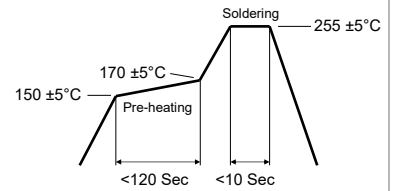
Pin Configuration	
1	En/Dis
2	GND
3	Output
4	V <sub>DD</sub>

### ■ SOLDER PATTERN

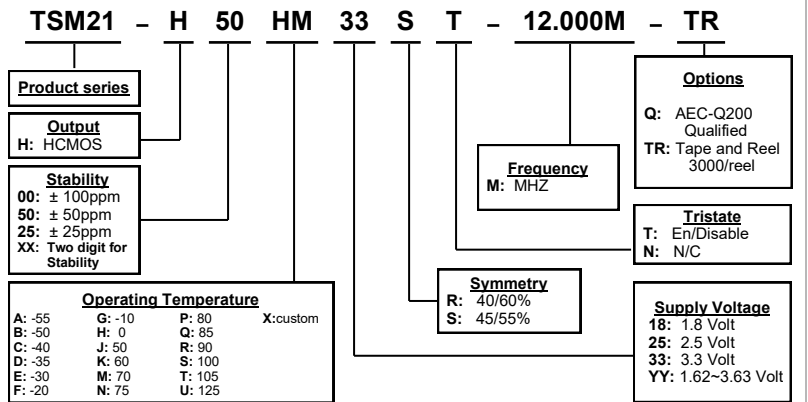


\*0.01µF to 0.1µF bypass capacitor recommended

### ■ REFLOW PROFILE



### ■ PART NUMBERING GUIDE



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