

## MINIATURE SMD REAL TIME CLOCK (3.2 x 2.5 x 1.0mm)

### FEATURES:

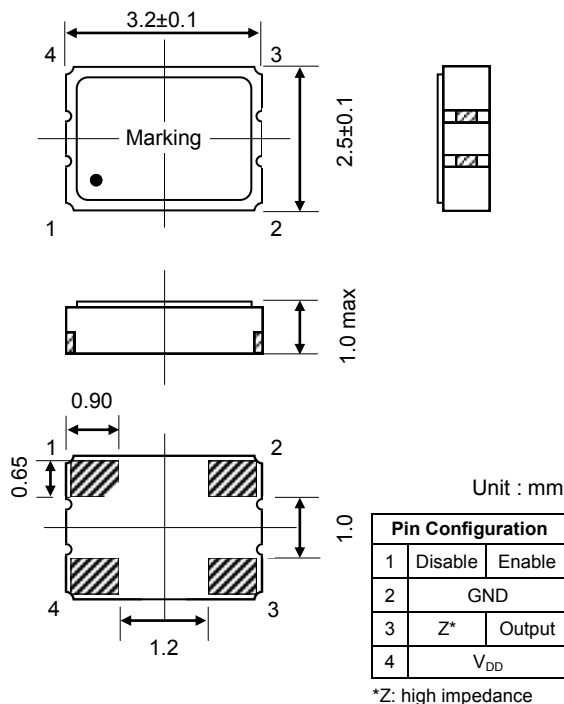
- HCMOS OUTPUT @ 32.768kHz
- LOW VOLTAGE
- LOW CURRENT



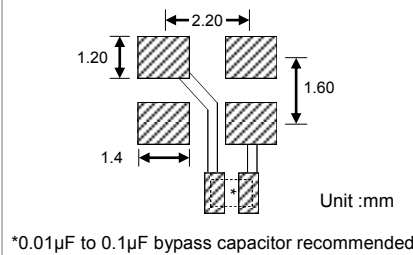
### ■ SPECIFICATION

<b>FREQUENCY</b>	STD: 32.768kHz (25kHz ~ 1MHz available)	
<b>FREQUENCY TOLERANCE @ 25°C</b>	±30ppm max.	
<b>FREQUENCY STABILITY</b>	±20ppm ~ ±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> ~ 5.0V <sub>DC</sub>	
<b>SUPPLY CURRENT</b>	200µA max. ( at 32.768kHz only)	
<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 (over -40°C ~ 85°C ), Option: 45% / 55%
	<b>RISE AND FALL TIME (Tr/Tf)</b>	30nS max.
<b>STAND-BY VOLTAGE</b>	<b>START-UP TIME</b>	10mS max.
	<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>AGING @ +25°C ±3°C</b>	±3.0ppm / 1 <sup>st</sup> year max.	
<b>PHASE JITTER RMS (12kHz ~ 20MHz)</b>	1pS max.	

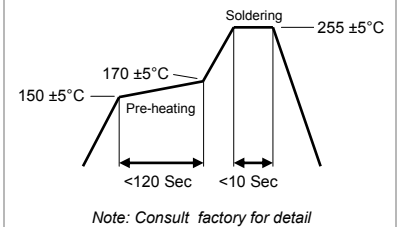
### ■ PACKAGE DIMENSIONS



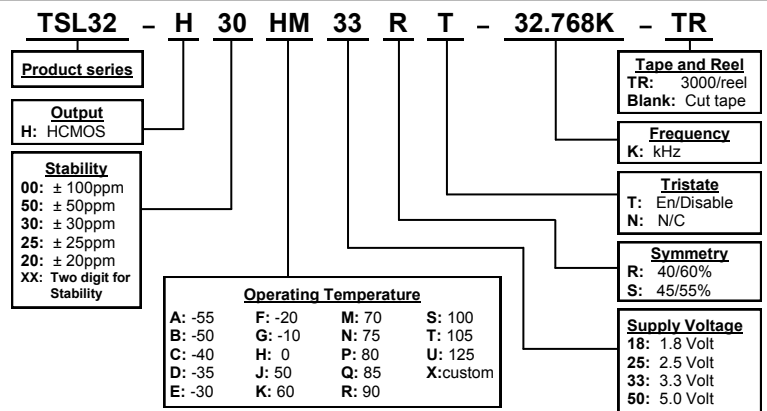
### ■ SOLDER PATTERN



### ■ REFLOW PROFILE



### ■ PART NUMBERING GUIDE



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