

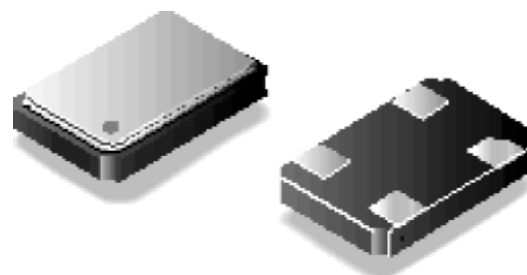
HE-SPO-535 / HE-SPO-335P PROGRAMMABLE SMD OSCILLATOR



The HE-SPO-535 (5V) and HE-SPO-335 (3.3V) is the one time programmable ceramic base surface mount crystal clock oscillator encased in the compact package only 5.0 x 3.2 x 1.0mm. With our proprietary PLL design, our programmable oscillator cuts industry lead-times down to 2-3 weeks max. while maintaining superior quality and performance.

FEATURES:

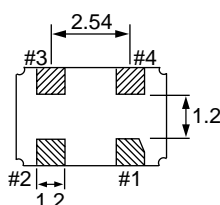
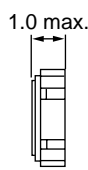
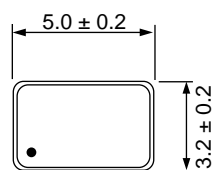
- Miniature package only 5.0 x 3.2 x 1.0(H) mm
- Industry Standard pin-out spacing
- Available in 3.3V or 5V
- CMOS output logic
- Ability to withstand the IR or vapor phase reflow soldering process



ELECTRICAL SPECIFICATIONS

PARAMETERS	CONDITIONS	SPECIFICATIONS		
		HE-SPO-535	HE-SPO-335	
HEC PN				
SUPPLY VOLTAGE	All Conditions	+5.0V ± 10%	+3.3V ± 10%	
FREQUENCY RANGE	All Conditions	1.00 MHz ~ 125.00 MHz		
FREQUENCY STABILITY	All Conditions	±50 PPM: B ±100 PPM: C OTHER : S		
OPERATING TEMPERATURE		0 °C to +70 °C		
STORAGE TEMPERATURE		-55 °C to +125 °C		
OUTPUT SYMMETRY	1.0 ~ 70.0 MHz 70.1 ~ 125.0 MHz	45 : 55 % 40 : 60 %		
DRIVING ABILITY	HCMOS Load	15 pF max.		
RISE AND FALL TIME	10% V _{DD}	7 nsec. max.	5 nsec. max.	
START UP TIME	1.0 ~ 32 MHz: 5ms max 32 MHz +: 10ms max.	5ms max. 10ms max.		
OUTPUT VOLTAGE	V _{OH} V _{OL}	90% of V _{DD} 10% of V _{DD}		
CURRENT CONSUMPTION	1.0 ~ 40.0 MHz 40.1 ~ 70.0 MHz 70.1 ~ 125.0 MHz	25 mA max. 40 mA max. 50 mA max.	15 mA max. 22 mA max. 30 mA max.	
OUTPUT CURRENT	"0" Level (Min.) "1" Level (Min.)	8 mA 8 mA	4 mA 4 mA	
E/D FUNCTION (TRI-STATE OUTPUT)	1.0 MHz ~ 125 MHz	#1 Open - #3 Active #1>2.0V - #3 Active #1<0.8V - #3 High Z	#1 Open - #3 Active #1>0.7V - #3 Active #1<0.2V - #3 High Z	
JITTER (P-P)	at CL = 15pF	250 ps max.		
PART NUMBERING GUIDE	HEC PART NUMBER	STABILITY (B, C, OR S)	- FREQUENCY	- SPECIAL OPTIONS
PART NUMBER EXAMPLE		HE-SPO-335C-10.00M		

MECHANICAL DRAWING



Pin Connections:

- #1: E/D
- #2: GND
- #3: Output
- #4: VDD

Unit: mm

Recommended Solder Pad Layout

