# RENESAS HCMOS, Ceramic, Seam-Sealed, SMD, Oscillator

Specifications

Parameters		Ratings/Units	
Frequency		12.800 MHz	
Frequency Stability <sup>1</sup> :		±10PPM Max	
Temperature Range: Operating (TOPR)   Storage (TSTG)		-40°C ~ +85°C -40°C ~ +85°C	
Supply Voltage (VDD)		3.3 V ±5%	
Input Current (IDD)	7 mA Max		
Output Symmetry (@ 50% VDD)		45% / 55%	
<b>Rise Time</b> (10% ~ 90% VDD)	(TR)	5 nS	
Fall Time (90% ~ 10% VDD)	(TF)	5 nS	
Output Voltage (HCMOS)	(Vol) (Voн)	10% Vdd Max 90% Vdd Max	
Output Current	(Iol) (Ioн)	4 mA Min -4 mA Min	
Output Load (HCMOS)		15 pF Max	
Standby Current (VIL ≤ 30%VDD)		10 µA Max	
Startup Time (Ts)		10 mS Max	
Output Disable Time <sup>2</sup>		250 nS Max	
Output Enable Time <sup>2</sup>		10 mS Max	
Maximum Soldering Temperature / Time		260°C / 10 seconds	
Moisture Sensitivity Level (MSL)		1	
Termination Finish		Au	

Enable/Disable Function <sup>2</sup>				
Pin 1	Output (Pin 3)			
Open	Active			
'1' Level VIH <u>&gt;</u> 70%VDD	Active			
'0' Level VIH ≤ 30%VDD	High Z			

<sup>1</sup> Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, aging, shock, and vibration.

<sup>2</sup> internal pullup resistor from pin 1 to pin 4 allows active output if pin 1 is left open.

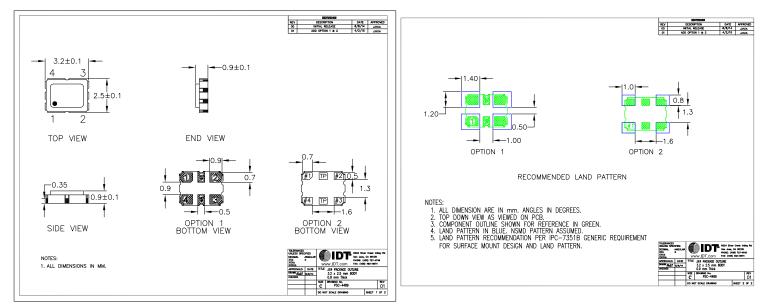
Note: A 0.01µF bypass capacitor should be placed between VDD (Pin 4) and GND (Pin 2) to minimize power supply line noise.

Note: The above specifications, having been carefully prepared and checked, is believed to be accurate at the time of publication; however, no responsibility is assumed by IDT for inaccuracies. Dimensional drawing below is for reference to critical specifications defined by size measurements. Certain non-critical visual attributes, such as side castellations, reference pin shape, etc. may vary. All specifications subject to change without notice.

## DATASHEET



## Package Outline and Dimensions (JX4)



## **Pin Assignments**

Pin Number	Description	
1	E/D	
2	GND	
3	Output	
4	Vdd	

## **Ordering Information**

Part / Order Number	Shipping Packaging	Package	Temperature
826A-12.8-1JX4I	Cut-Tape	3.2 x 2.5 x 0.9 mm JX4	-40° to +85°
826A-12.8-1JX4I8	Tape and Reel	3.2 x 2.5 x 0.9 mm JX4	-40° to +85°

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