

Travelling Merchant: \_\_\_\_\_

# DATASHEET

Standard:           **R55-G325-10.00MHz**          

P/N: \_\_\_\_\_

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2024.12.16			

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## 1. Electrical Parameters

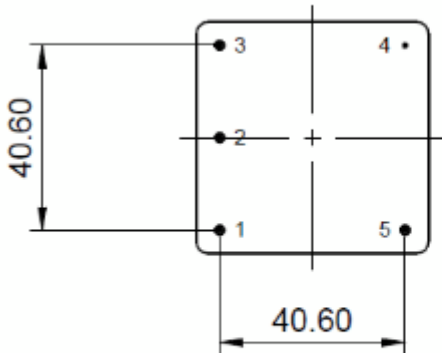
MODEL: R55-G325-10.00MHz							
Item	Description	Parameters			Unit	Test Condition	
		Min.	Typ.	Max.			
Output	Frequency	10.00			MHz		
	Output Waveform	HCMOS					
	Output Low Voltage			0.4	V	$V_{cc}=5.0V, O_{load}=15pF$	
	Output High Voltage	2.4			V	$V_{cc}=5.0V, O_{load}=15pF$	
	Duty Cycle	45	50	55	%	@50%	
	Rise / Fall Time (10%~90%)			10	ns		
	Load	15			pF		
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.8		+0.8	$\times 10^{-9}$	$T_A$ varied from $-10^{\circ}C$ to $60^{\circ}C$ , measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2, V_{cc}=5.0V, O_{load}=15pF$ , temperature variable speed less than $2^{\circ}C$ per minute.	
	Initial Frequency Tolerance	-0.05		+0.05	$\times 10^{-9}$	Measurement referenced to frequency observed with $T_A=25^{\circ}C, V_{cc}=5.0V, V_c=1.65V$ , and after 15 minutes of operation, within 30 days after ex-works.	
	Frequency Tolerance vs. Supply Voltage	-0.4		+0.4	$\times 10^{-9}$	measurement referenced to frequency observed $T_A=25^{\circ}C, V_{cc}$ varied from 4.85V to 5.15V, $V_c=1.65V, O_{load}=15pF$ .	
	Frequency Tolerance vs. Load	-0.4		+0.4	$\times 10^{-9}$	5% load change measurement referenced to frequency observed with $T_A=25^{\circ}C, V_{cc}=5.0V, V_c=1.65V$ , and $O_{Load}=15pF$ .	
	Short-Term Stability: Allan Variance			5		$\times 10^{-11}$	Temperature stability, no EMI/EMC or other interference, test after power for 1hour ref. to $25^{\circ}C$ ; 1s.
				9		$\times 10^{-12}$	Temperature stability, no EMI/EMC or other interference, test after power for 1hour ref. to $25^{\circ}C$ ; 10s.
				4.5		$\times 10^{-12}$	Temperature stability, no EMI/EMC or other interference, test after power for 1hour ref. to $25^{\circ}C$ ; 100s.
	Retrace	-0.02		+0.02	$\times 10^{-9}$		
	Magnetic Sensitivity	Field	DC ( $\pm 2$ Gauss): $< \pm 0.04ppb/Gauss$ max				
	Aging Tolerance Per Day		-0.005		+0.005	$\times 10^{-9}$	$V_{cc}, T_A$ constant measurement referenced to frequency observed with $T_A=25^{\circ}C, V_{cc}=5.0V, V_c=1.65V$ , and after 30 days of operation.
Aging Tolerance Per Month		-0.05		+0.05	$\times 10^{-9}$		



Power Supply	Supply Voltage	4.85	5.0	5.15	V	
	Steady Consumption			1200	mA	@25°C
	Warm up current			3600	mA	
	Warm-up time	7min To lock@25°C, Lock Monitor: Pin2 is high (5V) when out of lock and low(0V) when locked.				
Voltage Control Characteristics	Frequency Tuning Range			-5	$\times 10^{-9}$	$V_c=0V$ . measurement referenced to $V_c=1.65V$
		-0.05		+0.05	$\times 10^{-9}$	$V_c=1.65V$ . measurement referenced to exactly 10.00MHz
		+5			$\times 10^{-9}$	$V_c=3.3V$ . measurement referenced to $V_c=1.65V$
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	10				K $\Omega$
Phase Noise	Phase Noise		-67			1Hz
			-95			10Hz
			-127			100Hz
			-140			1KHz
			-148			10KHz
			-148			100KHz
Environmental Conditions	Operable Temperature	-10		+60	°C	
	Storage Temperature	-55		+105	°C	
	ESD Level	Human Body Model, class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010.				
		Machine Model, class B: 200V to 400V; JEDEC JESD22-A115C.				
	Moisture Sensitivity Level	Not humidity sensitive.				
	Vibration	Test Condition: 0.75mm ;acceleration:10g;10Hz~500Hz, one cycle per 30 min, test 2 hour. (3 times for each 3 directions X, Y, Z), IEC 68-2-06 Test Fc.				
Shock	50g; 11ms; half sine wave (3 times for each 3 directions X, Y, Z),IEC 68-2-27 Test Ea/Severity 50A.					
Full Package Storage	Relative humidity (%)	20%~70%				
	Temperature (°C)	-10~35°C				

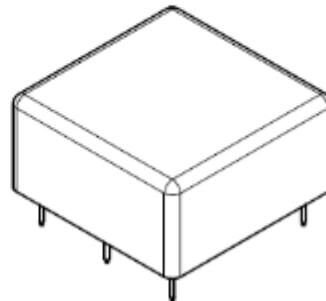
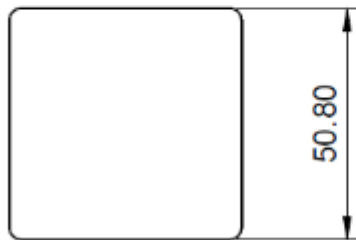
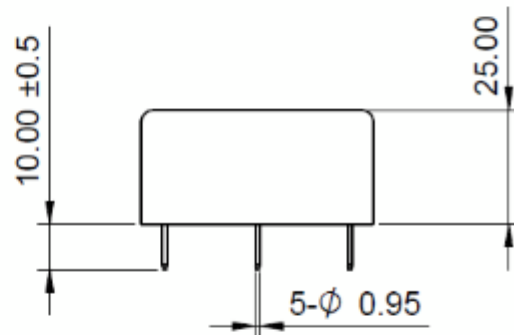
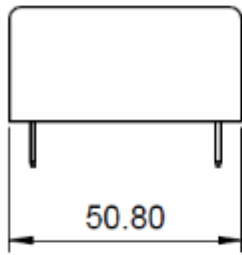


## 2. Mechanical Structure(mm)



### Pin Connections

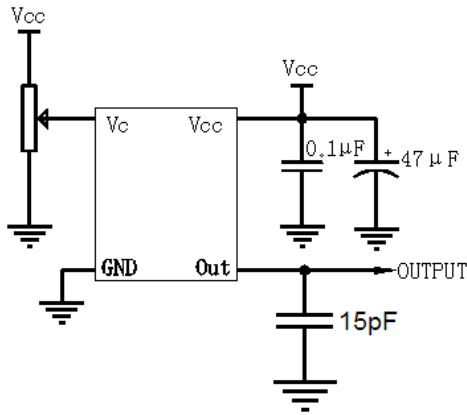
1. Frequency Control
2. Lock Monitor
3. Output
4. GND
5. +Vs



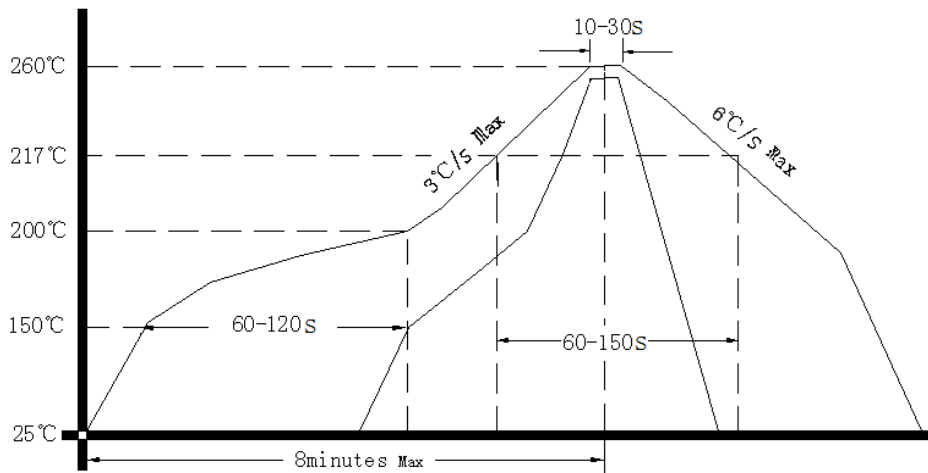
**Note1:** Tolerance  $\pm 0.2\text{mm}$  without mark



### 3. Test Circuit



### 4. Reflow Soldering Curve (RoHS)



### 5. Package (mm)

