

Approved by:
Checked by:
Issued by:

SPECIFICATION

MODEL: SJK-6MF-50.00-5.0-30-X-B

深圳市晶科鑫实业有限公司
SHENZHEN CRYSTAL TECHNOLOGY INDUSTRIAL CO., LTD.

CRYSTAL OSCILLATOR



Series 6M HCMOS/TTL Crystal Oscillator

FEATURE

- I All metal weided package .
- I Wide frequency range from 0.25MHZrp to 180MHZ .
- I CMOS lccircrit comstruction built-in with tristate function
- I CMOS/TTL compatible in general application
- I Vcxo : Voltage Controlled Crystal Oscillator

ELECTRICAL SPECIFICATIONS

Model Tope		Full Size		Half Size	
Fan Out Type		TTL/CMOS	CMOS	TTL/CMOS	CMOS
Supply Range		5.0v	3.3V	5.0V	3.3V
Frequency Range		0.25~180MHz			
Operating Temperature		0~70℃, -20~70℃, -40~+85℃			
Frepquency.Range Input Current	0.25MHz~9.999MHz	15mA	10mA	15mA	10mA
	10.00MHz~23.999MHz	15mA	10mA	15mA	10mA
	24.00MHz~49.999MHz	30mA	20mA	30mA	20mA
	50.00MHz~79.999MHz	40mA	20mA	40mA	20mA
	80.00MHz~180.00MHz	50mA	30mA	50mA	30mA
Frequency Stability	All Comditions	±10ppm, ±20ppm, ±25ppm, ±50ppm, ±100ppm			
Symmetry	AT 1/2 Vdd	45/55%			
Input Voltlage	Vol(max)	0.4v/0.5v	0.3v	0.4v/0.5v	0.3v
	Voh(min)	2.4v/4.5v	3.0v	2.4v/4.5v	3.0v
Rise/Fall time	AT0.1Vdd~0.9Vdd	5ns max			
Driving Ability	CMOS load max	15PF /50PF	15PF	15PF /50PF	15PF
	TTL load max	10TTL		10TTL	
Start-up Time	Load range	10ms max			
E/D Function	#1 open	#8OPEN		#5OPEN	
	#1>=2.2v	#8OPEN		#5OPEN	
	#1<=0.8v	#8HIGNZ		#5HIGNZ	
PAD CONNECTION		PIN#1E/D	PIN#8OUT	PIN@1E/D	PIN#5OUT
		PIN#7GND	PIN#14vdd	PIN#4GND	PIN#8Vdd

PART NUMBER GUIDE

6MF	50.00	5.0	30	X	B
Model type	Frequency	Supply	Frequency	Fan out type	Temperature
6MF:Full	50.00:50.00	voltage	tolerance	X:TTL/CMOS	range
size.14pin	MHz	5:5V	50:±50ppm	Y:CMOS	A: 0-70℃
6MH:Half size.8pin		3.3:3.3V	30:±30ppm	Z:TTL	B:-20-70℃
					C:-40-85℃

MARKING AND DIMENSIONS

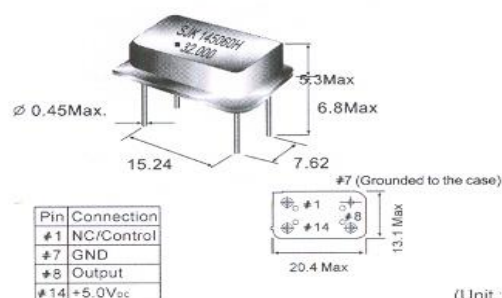
Add: RM#1805, East Wing,TianAn Hi-tech Plaza Phase2,TianAn Cyber Park, Shenzhen, China

Tel: (86) 755 88352809 88352810 Fax: (86) 755 88353718 88352499

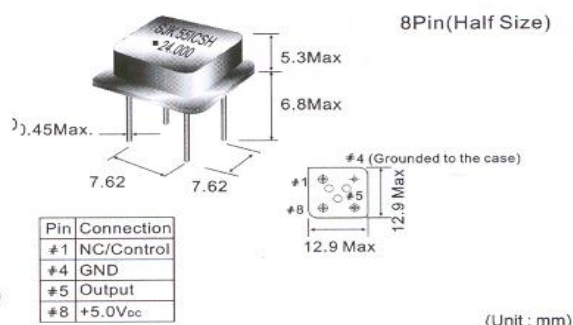
E-mail: jolly@g-crystal.com HTTP://www.g-crystal.com

CRYSTAL OSCILLATOR

Series 6M HCMOS/TTL Crystal Oscillator

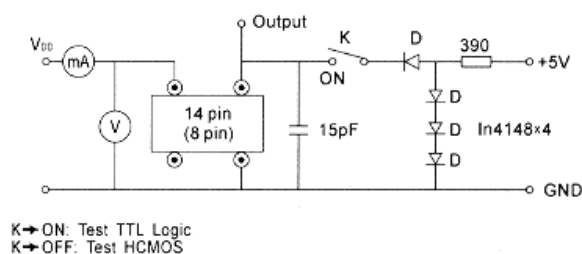


(Unit: mm)

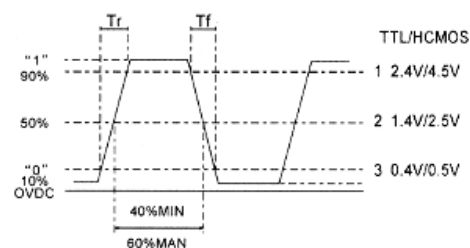


(Unit: mm)

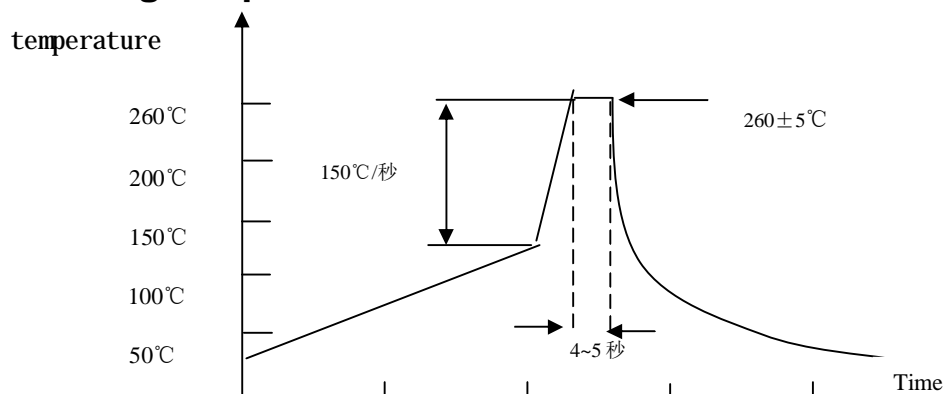
CIRCUIT PRINTCIPLE



OUTPUT WAVE FORM



Wave soldering temperature curve



RELIABILITY TEST

Add: RM#1805, East Wing, TianAn Hi-tech Plaza Phase2, TianAn Cyber Park, Shenzhen, China
 Tel: (86) 755 88352809 88352810 Fax: (86) 755 88353718 88352499
 E-mail: jolly@q-crystal.com HTTP://www.q-crystal.com

CRYSTAL OSCILLATOR

Series 6M HCMOS/TTL Crystal Oscillator



Test item	Equipment	Condition	Specification
1. TERMINAL STRENGTH TEST	PULL EQUIPMENT	1. 10N force in axes of termination 10±1SEC 2. 2.5MM from terminal, bend 90°	'1. MIL-STD-202F,METHOD 211A' 2. MIL-STD-202F,METHOD 211A
2.SOLDERABILITY TEST	SJK-REL001、RC-328A	1.solderability:235±5℃, 5±0.5S 2.heat resistance:260±5℃,10±1S restoration of 1 hour	'1. MIL-STD-883CMETHOD 2003.7 2. MIL-STD-202F,METHOD 210A
3. HERMETICITY TEST	HELIOT-306S	FC-84fluorocarbon,BUBBLE machine	MIL-STD-883C METHOD 1014.9' 1. TEST CONDITION:C1 2. TEST CONDITION:A4
4. VIBRATION TEST	HG-V4、S&A 250B	Enable Crystal(10g) from 10-55-10Hz,X、Y、Z horizontal,1 Minute vibration/time, 1time/ 2 hours.	JIS C5025 TEST MIL-STD-883C,METHOD 2007.2
5. MECHANICAL SHOCK	HPC-200、S&A 250B	Enable Crystal 50G(490m/s ²) time=11 ms speed=3.4 m/s half sine wave oscillation	JIS C5026 MIL-STD-883C,METHOD 2002
6. DROP TEST	HARD BOARD.S&A250B	75CM high,3 times on hard board	'JIS C6701
7. SALT SPRAY	H-SST-60、RC-328A	5% NaCL,35℃±2℃ CHAMBER,48 hrs. , PH:6.5~7.2	JIS C5028 & MIL-STD-202F
8. HIGH&LOW TEMP STORAGE TEST(Static test)	H-PTH-80CK & HM101-3ABN, S&A 350B/250B	High temperature: 125℃±2℃,1000hr; Low temperature:-40℃±3℃,1000hrs	MIL-STD-883C,METHOD 1011.8& JIS C5030
9. TEMP & HUM CYCLING TEST	H-PTH-80CK CHAMBER , S&A 350B/250B	Temperature:-10℃±2℃ ~ 65℃±2℃,Humidity:93±3%,1 cycle need 24 hrs. 5cycles.	MIL-STD-883C,METHOD 1010.7
10. HIGH TEM. & HUM. STORAGE TEST	H-PTH-80CK CHAMBER , S&A350B/250B	temperature:40℃±2 , Humidity:85+3,-2%,Store 96 hrs	JIS C5023
11AGING TEST	H-PTH-80CK CHAMBER , S&A350B/250	temperature: 85℃±2, 1000hrs	JIS C5031

Add: RM#1805, East Wing,TianAn Hi-tech Plaza Phase2,TianAn Cyber Park, Shenzhen, China
 Tel: (86) 755 88352809 88352810 Fax: (86) 755 88353718 88352499
 E-mail: jolly@g-crystal.com HTTP://www.g-crystal.com