

1703 E. Highway 50 Yankton, SD 57078 USA Phone: 800-762-8800 or 605-665-9321 Fax: 605-665-1709

Website: www.mtronpti.com



SPECIFICATION FOR HCMOS COMPATIBLE SMT OSCILLATOR MtronPTI P/N M2532S095

Electrical Specifications:

Parameter	Symbol	Min.	Тур.	Max.	Units	Conditions
Frequency of Operation	Fo		121.600000		MHz	
Frequency Stability	ΔF/F	-25		+25	ppm	Includes, initial calibration tolerance, deviation over operating temperature, supply voltage, load, shock, vibration
Operating Temperature	T_A	-40		+85	°C	
Storage Temperature	Ts	-55		+125	°C	
Aging		-3		+3	ppm	1 st year
Aging		-2		+2	ppm	Thereafter (per year)
Operating Voltage	V_{DD}	3.135	3.3	3.465	V	
Operating Current	I_{DD}			20	mA	
Standby Current				10	μΑ	
Output Type		HCMOS Compatible				
Output Load				15	pF	
Symmetry (duty cycle)	T _{DC}	45		55	%	Ref to ½ V _{DD}
Logic "1" Level	V _{OH}	90% V _{DD}			V	HCMOS load
Logic "0" Level	V_{OL}			10% V _{DD}	V	HCMOS load
Rise/Fall Time	T_R/T_F			10	nS	From 10% to 90% V _{DD}
Start-Up Time			4	10	mS	
Tri-State Function		Logic "1" or floating, Enables output. Logic "0" disables output to a high impedance.			Pad 1	
Random Jitter			4	10	pS RMS	1 Sigma

Environmental & Mechanical Requirements:

Mechanical Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 ms duration, ½ sinewave)
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)
Thermal Cycle	Per MIL-STD-883, Method 1010, B (-55°C to 125°C, 15 min. dwell, 10 cycles)
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm cc/s of Helium)
Solderability	Per EIAJ-STD-002
Max. Soldering Conditions	See solder profile, Figure 1
Package Type	4-pad 2.5 X 3.2 X 1.1 mm leadless ceramic. RoHS compliant.



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Dimens

Pad	Function	Pa	Part Marking			Legend	
1	Tri-state	Line 1	121M6		у	Year	
2	Ground	Line 2	M (y-ww)		ww	Work week	
3	Output						
4	+V _{DD}						
4	0.126 ±0.008 (3.20 ±0.20) 3 0.098 ±0.004 (2.50 ±0.10)	0.030 (0.75) TYP	- 0.083 (2.10) TYP 0.035 (0.90) TYP	SUGG	ESTED SO	DLDER PAD LAYOUT 0.083 (2.10) 0.043 (1.10) 0.073 (1	
43 (1.10)	MAX —				0.041 (1.0	05)	
	All dimension in inches (m						
		3°C/SECOND MAX.	\neg				
26	30°C					1PERATURE	
SATURE				/ zo	— RAN	IP-DOWN SECOND MAX.	
E 21	17°C		/ 		7 "	OLOOND MAX.	
Ε̈́		/					
⊢ 20	00°C				`		
15	50°C						
		REHEAT CONDS MAX.			90 5	ECONDS MAX.	

Figure 1

TIME

260°C MAX. FOR 10 SECONDS MAX

DATA SHEET REVISION TABLE:

	DATA STILLT REVISION TABLE:						
1	Date	Rev.	Author	Details of Revision			
1	11/28/12	0	TOY	Original release.			