

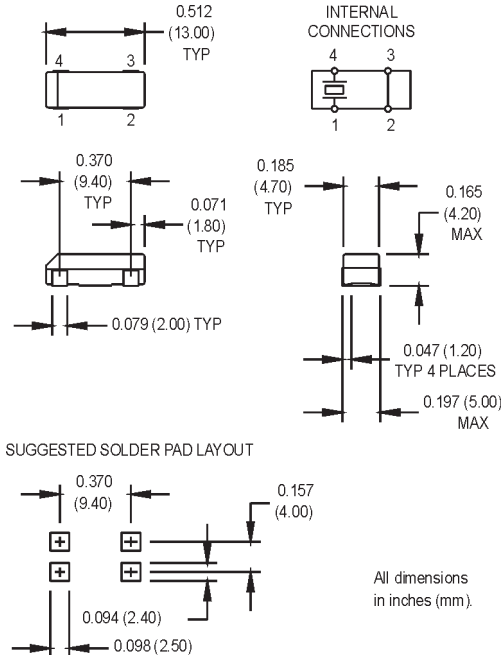
SX2050 Surface Mount Crystals

THIS PRODUCT IS NOT RECOMMENDED FOR NEW DESIGNS.



***SX2050-R 00.0000 MHz** (customer specified)
 -R signifies RoHS compliant part
 M1011Sxxx - Contact factory for datasheet

Equivalent Series Resistance (ESR), Max.	Sx2050
Fundamental (AT-cut)	
3.579 to 3.999 MHz	200 Ω
4.000 to 4.499 MHz	150 Ω
4.500 to 4.999 MHz	120 Ω
5.000 to 6.999 MHz	100 Ω
7.000 to 8.999 MHz	80 Ω
9.000 to 9.999 MHz	60 Ω
10.000 to 12.999 MHz	50 Ω
13.000 to 18.999 MHz	35 Ω
19.999 to 30.000 MHz	25 Ω
Fundamental (BT-cut)	
30.000 to 40.000 MHz	30 Ω
Third Overtones (AT-cut)	
36.000 to 60.000 MHz	80 Ω



	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes	
Electrical Specification	Frequency Range	F	3.579545		60	MHz		
	Frequency Tolerance	F/F			±50	ppm		
	Frequency Stability	ΔF/F			±100	ppm	See Note 1	
	Operating Temperature	T _A	-20		+70	°C		
	Storage Temperature	T _S	-55		+125	°C		
	Aging 1 st Year				+3	ppm	Up to 3 rd year	
	Thereafter (per year)				+5	ppm		
	Load Capacitance	C _L		18		pF	See Note 2	
	Shunt Capacitance	C ₀			5	pF		
	ESR		See ESR Table					
	Drive Level	D _L	25	50	100	μW		
	Insulation Resistance	I _R	500			MΩ		
Environmental	Mechanical Shock	MIL-STD-202, Method 213, C (100 g's)						
	Vibration	MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)						
	Thermal Cycle	MIL-STD-883, Method 1010, B (-55°C to 125°C, 15 min dwell, 10 cycles)						
	Hermeticity	MIL-STD-202, Method 112 (must meet 1 x 10 ⁻⁸)						
	Solderability	Per EIAJ-STD-002						
Max Soldering Conditions	See solder profile, Figure 1							

Note 1: BT Cut fundamentals from 24.000 to 40.000 MHz have a stability of ±100 ppm
 Note 2: Series resonant designated by "SR" prefix (ie., SRSX2050)

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MtronPTI Lead Free Solder Profile



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