

勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-54151736  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

<b>“M49G” series</b>	<b>Surface Mount Crystals RoHS Compliant</b>		<b>MERCURY</b> Since 1973
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- Model **M49G** is the surface mount version of the HC-49/US low profile crystal.
- Lowest cost. The most economic solution for automatic assembly.



**SPECIFICATIONS**

**Crystal Holder Prefix:** **M49G:** 4.2 mm seated height.

3.2~30.0 MHz AT-cut Fundamental mode

<b>Mode of Oscillation:</b>	27.0~70.0 MHz AT-cut 3 <sup>rd</sup> Overtone mode					
<b>Calibration Tolerance:</b>	24.0~48.0 MHz BT-cut Fundamental mode ±30 ppm (±0.003 %) at 25°C					
<b>Frequency Stability:</b>	AT-cut: ±30 ppm (±0.003 %) over -10 to +60°C BT-cut: ±100 ppm (±0.01 %) over -10 to +60°C					
<b>Shunt Capacitance (Co):</b>	7pF maximum					
	Frequency	Osc. Mode	ESR max.	Frequency	Osc. mode	ESR max.
	3.2 ~ 3.4	AT funda.	300 Ω	13.0 ~ 24.0	AT funda.	45 Ω
<b>Equivalent Series Resistance (E.S.R.)</b>	3.5 ~ 4.0	AT funda.	150 Ω	24.1 ~ 30.0	AT funda.	40 Ω
	4.1 ~ 4.9	AT funda.	120 Ω	24.0 ~ 48.0	BT funda.	40 Ω
	5.0 ~ 5.9	AT funda.	100 Ω	27.0 ~ 30.0	AT 3 <sup>rd</sup> O/T	150 Ω
	6.0 ~ 8.9	AT funda.	80 Ω	30.0 ~ 50.0	AT 3 <sup>rd</sup> O/T	100 Ω
	9.0 ~ 9.9	AT funda.	60 Ω	50.1 ~ 70.0	AT 3 <sup>rd</sup> O/T	80 Ω
	10.0 ~ 12.9	AT funda.	50 Ω			
<b>Load Capacitance (CL):</b>	Series ( spec. code is “S”) or Parallel (if parallel, please specify CL value, typical CL ranges from 8 to 32 pF)					
<b>Drive Level:</b>	500 μW maximum					
<b>Aging:</b>	Less than ±3 ppm per year. At +25°C					
<b>Reflow Soldering:</b>	10 seconds maximum at +260°C					
<b>Storage Temperature:</b>	-40 to +85°C					
<b>Packaging</b>	12 mm pitch; 24 mm tape; 360 mm reel; 1000 pcs per reel.					
<b>Note:</b>	Tighter tolerance, tighter stability and lower ESR are available.					

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“M49G” series

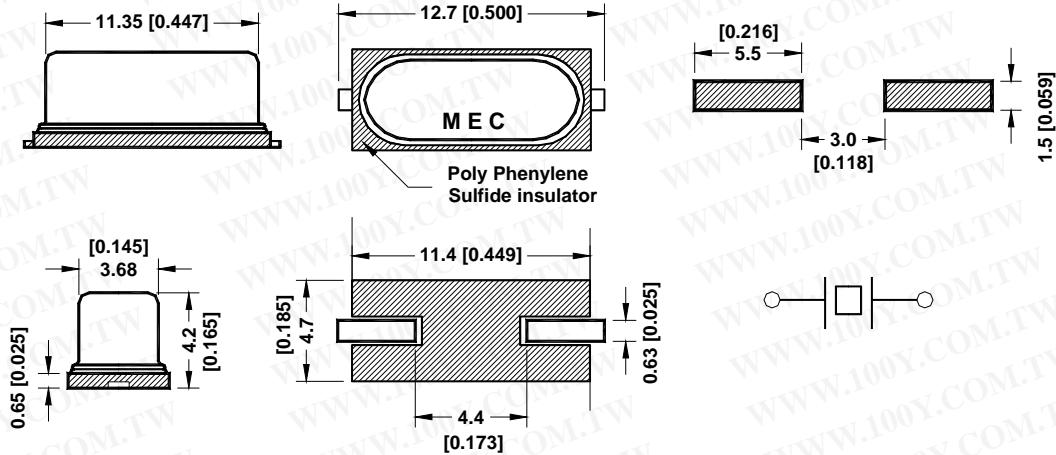
Surface Mount Crystals  
RoHS Compliant



MERCURY  
Since 1973

**PACKAGE DIMENSIONS AND SUGGESTED PAD LAYOUT**

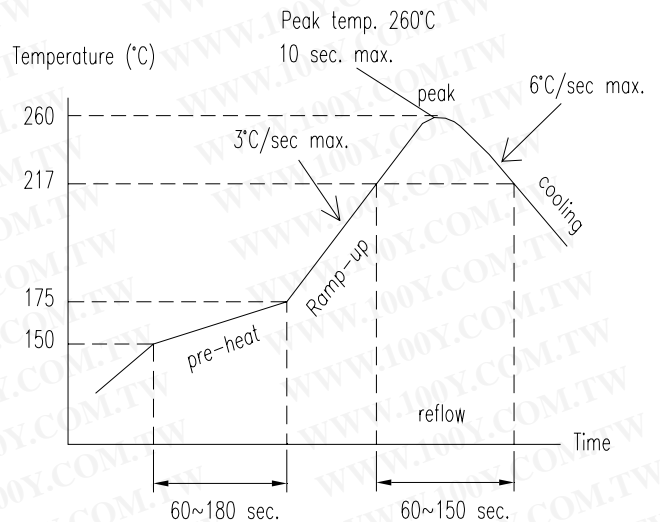
Unit: mm [inches]



**Environmental Performance Specifications**

Green Requirement	RoHS Compliant
Moisture Sensitivity Level	Level 1
Storage temp. range	-40 to +85°C
Humidity	85% RH, 85°C, 48 hours
Solderability	MIL-STD-883, method 2002
Reflow	260°C for 10 sec.
Vibration	MIL-STD-883, method 2007, condition A
Shock	MIL-STD-202F method 213, test condition C.

**Suggested Solder Reflow Profile**



**Part Number Format and Example:**

Example: M49G-10.245-18P-30/50/-10+70/50R												: customer to specify		
M49G	—	10.245	—	18P	—	30	/	50	/	10+70	/	50R		
①	dash	②	dash	③	dash	④	slash	⑤	slash	⑥	slash	⑦		
①: M49G series; ②: Frequency in MHz ③: Parallel Load Capacitance in pF or use “S” for SERIES resonance ④: Frequency tolerance in ppm; ⑤: Frequency stability in ppm; ⑥: Operating temperature in °C; ⑦: ESR (Equivalent Series Resistance) in max. ohms														

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