

PRODUKT-INFO

MM-11B SMD CRYSTAL (UHRENQUARZ) TUNING FORK CRYSTAL

FEATURES

1. Ultra-miniature type of SMD.
2. Highly stable characteristics – high enough to permit reflow soldering.
3. Can be mounted automatically.
4. Low consumption makes it ideal for application to portable equipment.
5. Plastic package.



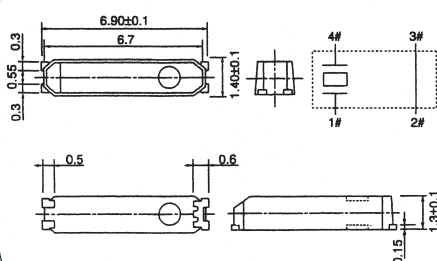
Actual Size



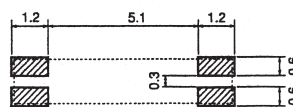
ELECTRICAL SPECIFICATIONS

Model	MM-11B
Nominal Frequency	32.768 kHz
Frequency Tolerance (at +25°C)	±20 ppm
Frequency vs Temperature	See drawing
Turnover Temperature	+25°C ±5°C
Temperature Coefficient	-0.034 ± 0.006 ppm/°C ² typical
Operating Temperature Range	-40°C to +85°C
Storage Temperature Range	-55°C to +125°C
Equivalent Series Resistance	65 kΩ max.
Load Capacitance (C _L)	12.5 pF typical
Motional Capacitance	0.0023 pF typical
Shunt Capacitance	1.2 pF max.
Drive Level	1 μW max.
Insulation Resistance	500 MΩ min. at 100 V _{DC} ± 15 V
Aging (at +25°C) first year	±3 ppm / year max.
Sealing	1 x 10 ⁻² μ Pa • m ³ /s max.

Dimensions (Units: mm)



Recommended Solder Pattern



Do not connect #2 and #3 to external device

6.9 x 1.4 x 1.3

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All specifications subject to change without notice.