

FEATURES

- Low profile
- Industry standard footprint capabilities
- High temperature seal
- Excellent shock resistance
- Excellent environmental characteristics
- Tape & Reel (1,000 pcs)

SMD QUARTZ CRYSTAL

This wide frequency range SMD quartz crystal is an excellent choice for surface mount applications. The ruggedized molded package is made from the same thermoplastic that is industry standard for integrated circuits.

PART NUMBERING GUIDE “EXAMPLE”

PART NUMBER	LOAD CAPACITANCE*	TAPE & REEL	FREQUENCY
SMDB	- 20	R	- 6.144 MHz

* Load capacitance (xx=xx pF, S= series resonance)

OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
FREQUENCY RANGE	f_0	3.57		70.00	MHz
SHUNT CAPACITANCE	C_0			5.0	pF
LOAD CAPACITANCE	C_L (Customer Specified)	12	18.0 standard	Series	pF
DRIVE LEVEL	3.57 ~ 70.0 MHz			100	μ W
CALIBRATION TOLERANCE	@ 25°C	-50		+50	PPM
FREQUENCY TOLERANCE	$\Delta f/f_0$	-50		+50	PPM
OPERATING TEMPERATURE RANGE	T_{OPR}	-10		+70	°C
STORAGE TEMPERATURE RANGE	T_{STG}	-30		+80	°C

EQUIVALENT SERIES RESISTANCE / MODE OF OSCILLATION

FREQUENCY RANGE (MHz)	MODE	MAX ESR Ω	FREQUENCY RANGE (MHz)	MODE	MAX ESR Ω
3.570 ~ 3.999	Fundamental	200	9.000 ~ 12.999	Fundamental	60
4.000 ~ 4.999	Fundamental	150	13.000 ~ 19.999	Fundamental	40
5.000 ~ 5.999	Fundamental	120	20.000 ~ 30.000	Fundamental	30
6.000 ~ 6.999	Fundamental	100	30.000 ~ 70.000	3rd O/T	100
7.000 ~ 8.999	Fundamental	80			

PACKAGE DIMENSIONS (mm)

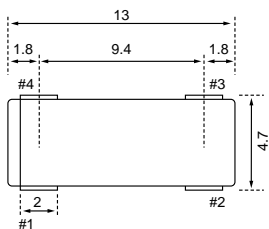


Figure 1) SMDB - Top, Side, Bottom and End views

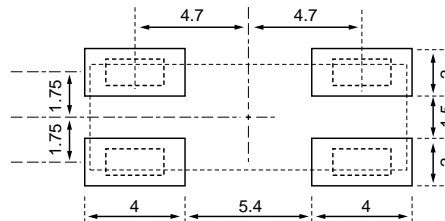


Figure 2) SMDB Land Pattern - Bottom view

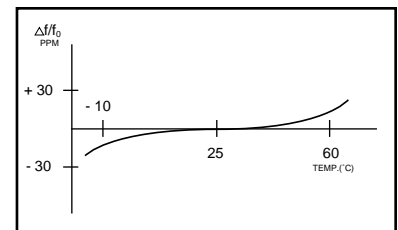


Figure 4) Frequency vs Temperature Curve

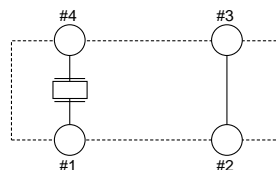


Figure 3) Internal Connections - Top view