

# Surface Mount Crystal

•SA3M (3.2 x 2.5 x 1.2 mm)



## Electrical Specifications

SMD Crystal SA3M		
CERAMIC SMD		SA3M
PARAMETER	CONDITION	
FREQUENCY RANGE	FUNDAMENTAL	11 MHz to 60 MHz
DIMENSIONS		3.2 x 2.5 x 1.2 MM
LOAD CAPACITANCE (CL)		6 TO 32 pF & SERIES
STATIC CAPACITANCE (Co)		3 pF MAX
EQUIVALENT SERIES RESISTANCE (ESR)		SEE TABLE 1 BELOW
MODE		FUNDAMENTAL
DRIVE LEVEL		10 μW typ., 100 μW MAX
FREQ. TOLERANCE AT +25C	STANDARD	+/-30 PPM
	OPTIONAL	+/-10 PPM to +/-100 PPM
STABILITY VS. TEMP.	STANDARD	+/-30 PPM
	OPTIONAL	+/-10 PPM to +/-100 PPM
OPERATING TEMP. RANGE	STANDARD	-20°C to +70°C
	OPTIONAL	SEE TABLE 2 BELOW
STORAGE TEMP. RANGE		-40°C to +85°C
AGING	FIRST YEAR	5 PPM
HERMETIC SEALED		YES, SEAM SEAL
INSULATION RESISTANCE		500 MΩ Min
SOLDER PADS	QTY:	4
DLD TESTED	RLD, DLD, FLD	YES, 100%
RoHS STATUS		FULLY COMPLIANT
LEGACY P/N		CX-3M

FREQUENCY RANGE	MAX ESR	MODE
11.0 MHz to 12.9 MHz	150 Ohms	Fundamental
13.0 MHz to 19.9 MHz	80 Ohms	Fundamental
20.0 MHz to 26.9 MHz	60 Ohms	Fundamental
27.0 MHz to 60.0 MHz	50 Ohms	Fundamental

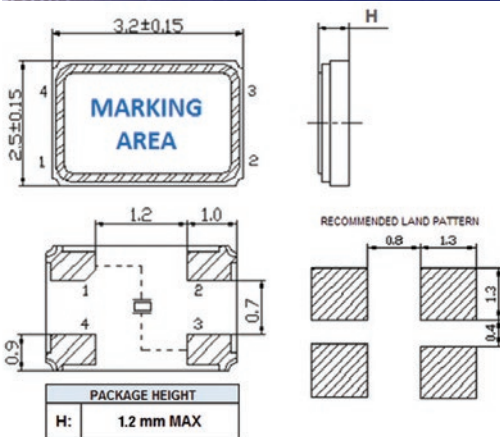
MOST POPULAR	CODE
-10°C~+60°C	JN
-20°C~+70°C	HP
-40°C~+85°C	DT

OTHER TEMPERATURE RANGES AVAILABLE - CONSULT FACTORY

NOTES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## Dimensions (Unit:mm)

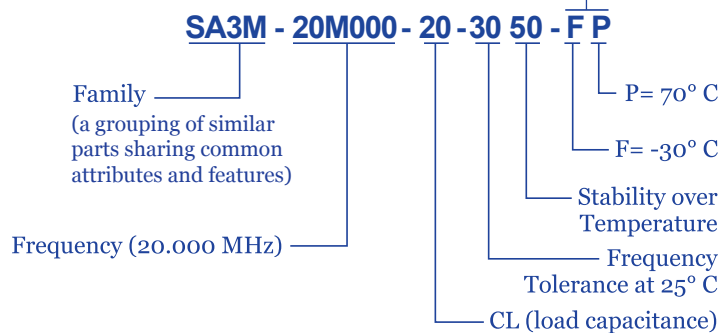
## \*NKG Crystal Part Numbering Key



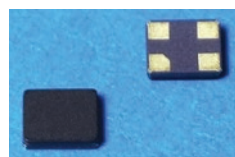
PIN No.	CONNECTION
1	CRYSTAL
2	N.C. or GROUND (GND)
3	CRYSTAL
4	N.C. or GROUND (GND)

The metal lid is connected to GND pins.

NOTE: The package as shown has a chamfered corner on pin 1 (connection pad 1 on bottom side of unit). Alternate package having the chamfered corner on pin 4 is approved and acceptable as well.



1st letter	2nd letter
A= -55°	L= 50°
B= -50°	M= 55°
C= -45°	N= 60°
D= -40°	P= 70°
E= -35°	Q= 75°
F= -30°	R= 80°
G= -25°	T= 85°
H= -20°	U= 90°
J= -10°	V= 100°
K= 0°	W= 105°
	X= 110°
	Y= 120°
	Z= 125°



\*NOT TO SCALE

**Contact**  
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