



anderson electronics, llc

A Lokos Electronics Company



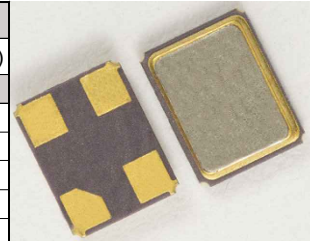
721 Scotch Valley Road
Hollidaysburg, PA 16648



Phone: (814) 695-4428
Fax: (814) 696-0403
E-mail: sales@aextal.com

AE 138 Series Surface Mount Crystal 2.0 x 1.6 x 0.6 mm

Part Numbering Definition Guide: AE-138-A-2-3060-3-32-16M0000								
Example	AE	138	A	2	3060	3	32	16M0000 (Freq. in MHz)
Oscillation Mode			A			Fundamental		
Calibration Tolerance			1			± 10 ppm		
			2			± 20 ppm		
			3			± 30 ppm		
			5			± 50 ppm		
			Z			± Custom (Specify)		
Operating Temperature			5505			Custom (-55°C to +105°C)		
			4085			-40° to +85°		
			3060			-30° to +60°		
			2070			-20° to +70°		
Temperature Stability			5			± 50 ppm		
			3			± 30 ppm		
			2			± 20 ppm		
			1			± 10 ppm		
Load Capacitance			18			18 pf		
			20			20 pf		
			30			30 pf		
			32			32 pf		
			SE			Series		
XX			Custom (I.E. 08 pf)					



FEATURES:

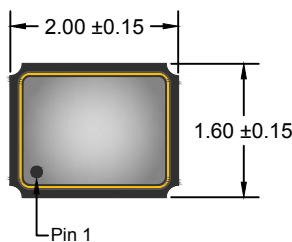
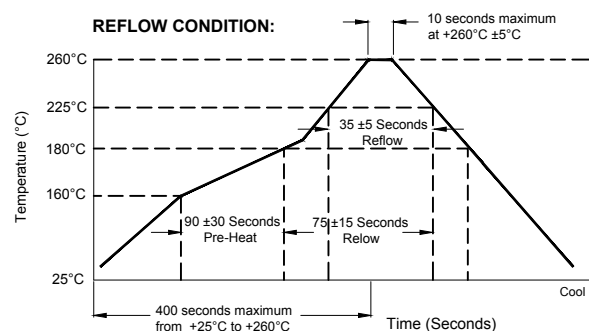
Frequency Range 16.0 MHz - 60.0 MHz
Seam sealed package, ultra miniature package, exhibits excellent technical performance in the aspects of frequency stability, aging, precision and reliability. Tape/Reel is compliant with EIA 481. ROHS Compliant/Pb-Free

APPLICATIONS:

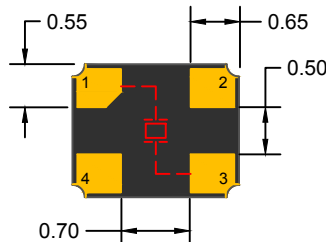
This ceramic AE138 is for Bluetooth, wireless communications, mobile phones, communications and test equipment.

Parameters	Minimum	Nominal	Maximum	Units
Shunt Capacitance			7.0	pF
Drive Level		10	100	uW
Aging / year	-5.0		+5.0	Units
Insulation Resistance	500			(M) ohms

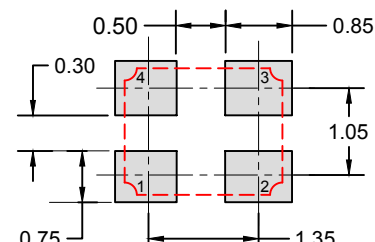
Frequency Range (MHz)	Series Resistance (ESR)	Mode of Operation
16.000 - 20.000	200 Ohms maximum	Fundamental
20.000 - 30.000	100 Ohms maximum	Fundamental
30.000 - 35.000	90 Ohms maximum	Fundamental
Greater than 35.000	80 Ohms maximum	Fundamental



Top View:



Bottom View:



Recommended Land Pattern



Pin	Connection
1	Crystal
2	Ground
3	Crystal
4	Ground

Dimensions in Units: mm