

ACT845SMX-2

The **ACT845SMX-2** is a 2 pad, cost competitive ceramic packaged, glass sealed crystal. The package provides for the durability and reliability, necessary for reflow processes. The pads are gold plated. With its wide range of frequencies allowing for ease of circuit design, and with a good range of stabilities, it has become one of the optimum choices for design engineers. (Available loose or reeled to suit low / high volume requirements).

Applications include Microprocessor Systems, Instrumentation, Communications, Notebook & PCMCIA and many more.



Specification

Parameter	Symbol	Specification	Condition
Frequency Range	fo	10.0 ~ 48.0 MHz Fundamental 48.0 ~ 80.0 MHz Third Overtone	Please specify
Frequency Tolerance	$\Delta f/f_0$	$\pm 20\text{ppm} \sim 100\text{ppm}$ (@25°C $\pm 3^\circ\text{C}$)	Please refer to Table 2
Stability over Temp Range	Tc	$\pm 20\text{ppm} \sim 100\text{ppm}$ (Ref to :25°C $\pm 3^\circ\text{C}$)	Please refer to Table2
Temp Operating Range	Topr	-10 ~ +70°C	
Temp Storage Range	Tstg	-40 ~ +85°C	
Equivalent Series Resistance	ESR	See Table 1	
Load Capacitance	CL	10 ~ 30pF or Series Resonance	Please specify
Shunt Capacitance	C0	7pF max	
Drive Level	DL	300 μW max. (100 μW Typical)	
Insulation Resistance	IR	500M Ω min	@100V DC
Reflow Process		10 Seconds (max) @260°C	
Aging	Fa	$\pm 5\text{ppm} / \text{year max}$	@25°C

Table 1

Frequency MHz	ESR Ω max	Mode
10.0~11.999	80	Fundamental
12.0~47.999	50	Fundamental
48.0~84.0	70	3rd Overtone

Pad surface material Au

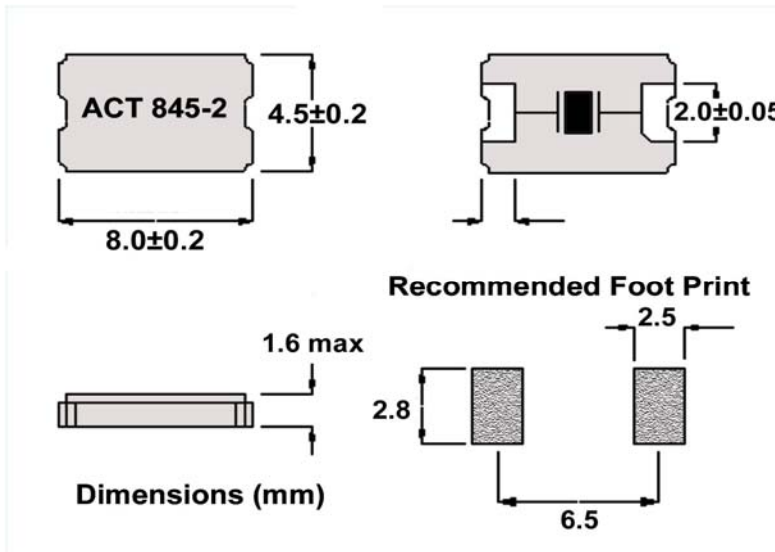


Table 2

		$\pm 20\text{ppm}$	$\pm 30\text{ppm}$	$\pm 50\text{ppm}$	$\pm 100\text{ppm}$
Tolerance	25°C	Enquire	☑	☑	☑
Stability	-10~+70°C	Enquire	☑	☑	☑
	-40~+85°C	Enquire	☑	☑	☑

Please note that all parameters can not necessarily be specified in the same device

Customer to specify : Frequency, Frequency Tolerance, Temperature Stability, Operating Temperature & Load Capacitance

In line with our ongoing policy of product evolution and improvement, the above specification may be subject to change without notice

ISO9001:2000 Registered

For quotations or further information please contact us at:

3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY, UK

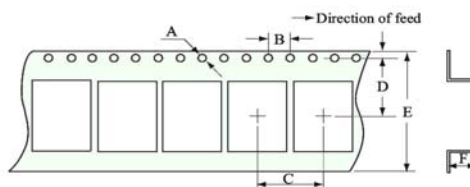
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Issue 4 H2

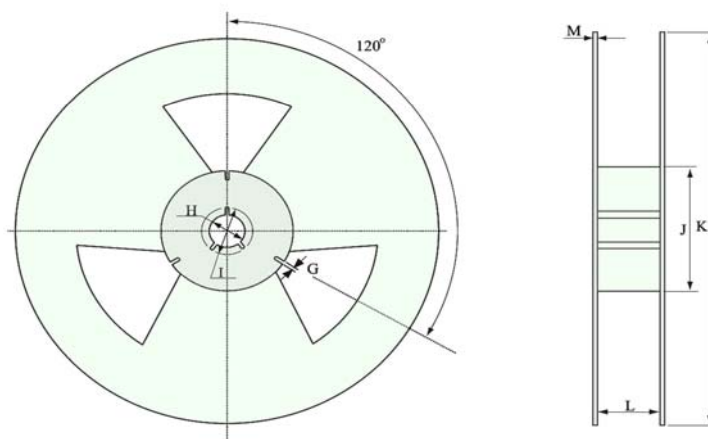
Date 14/12/2010

ACT845SMX-2

Standard Reel: 1K pieces



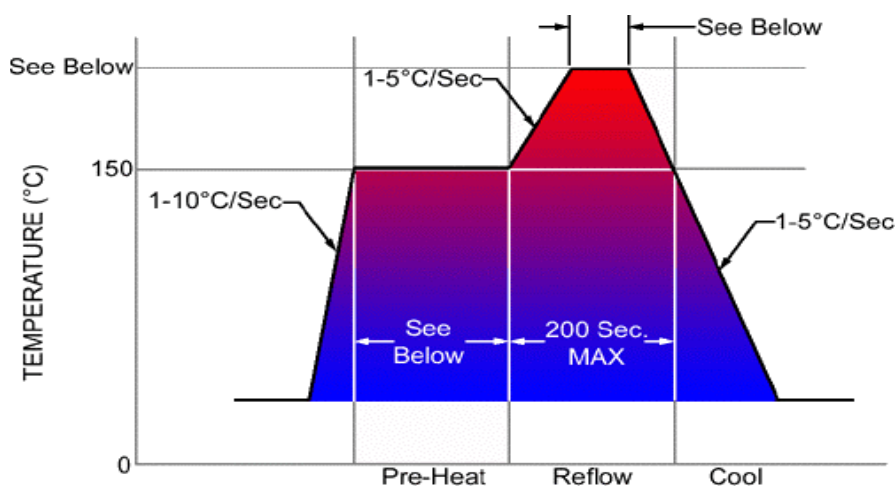
Tape and Reel Dimensions (mm)



A	B	C	D	E	F	G	H	I	J
1.5	4.0	8.0	7.5	16.0	2.0	2.5	13.5	21.6	60.0
K	L	M	G	H	I	J	K	L	M
178.0	17.5	1.6	65.2	71.0	76.7	82.5	88.3	94.1	99.8

REFLOW SOLDERING CONDITIONS

Pre Heat : 30 ~ 60 Seconds
Reflow temp : 260°C Max



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Issue 4 H2
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SERIES : ACT845SMX-2 Part numbering code is AZ

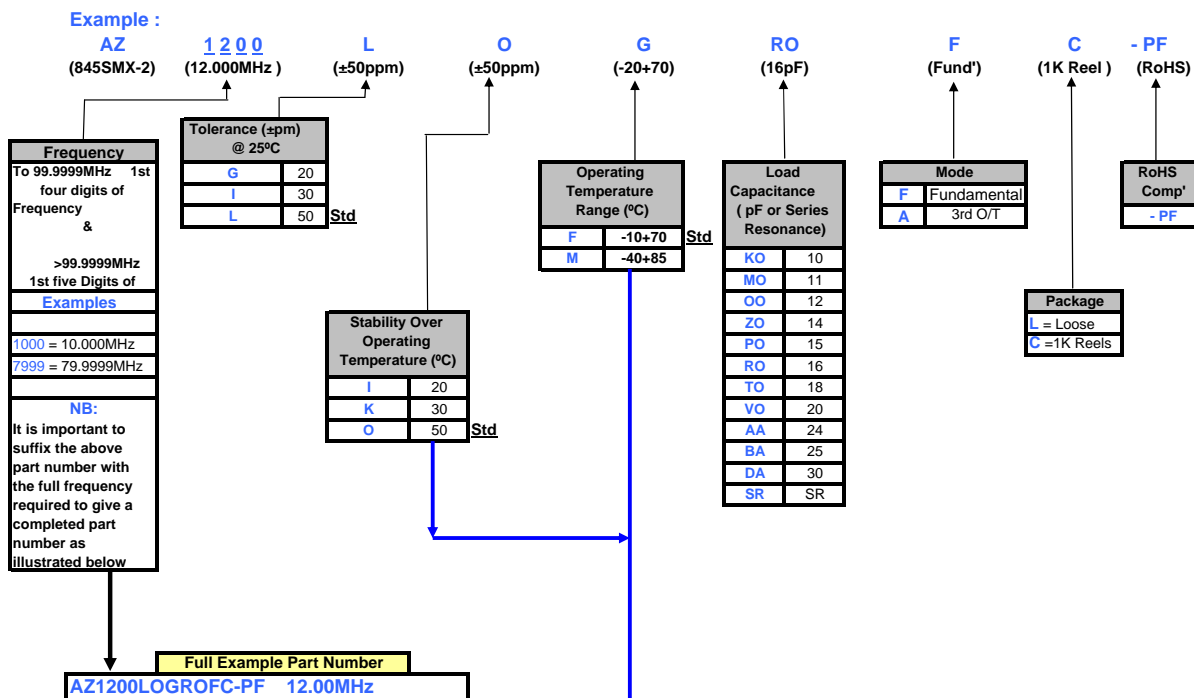


Table 2 Available Stabilities

		±20ppm	±30ppm	±50ppm	±100ppm
Tolerance	25°C	Enquire	☑	☑	☑
Stability	-10~+70°C	Enquire	☑	☑	☑
	-40~+85°C	Enquire	☑	☑	☑

NOTES :

- 1) Tighter Tolerances and Stabilities and other Operating Temperature Ranges may be available.
As each of these specification parameters impact on each other, it is not always possible to combine all options in one device. Therefore, if a specification not catered for above is required, please contact us directly for the relevant part number code(s).
- 2) ACT are always happy to consider truly custom specification parts which may require non-standard specification parameters, specific testing, customer requested AQL requirements, non standard packaging or taping and reeling and custom marking. Such devices would normally be allocated a custom specification part number which is wholly customer specific. (MOQ dependent)
(EG : A 12.00MHz custom ACT845SMX-4 device may have a part number such as AZ1200C- C2222-)
- 3) Frequencies below 10.000MHz are prefixed with a "0" (eg: 0900 = 9MHz. Whereas 10.000MHz is 1000)

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