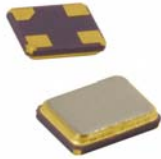


Product Specification

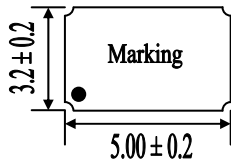


This product is certified to comply with the RoHS Directive 2002/95/EC.

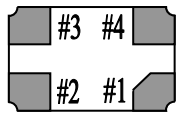
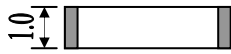
SM53A 4-pad SMD Crystal



- 5.0x3.2x1.0mm
- Ceramic base, metal lid
- Seam welded
- Wide frequency range
- Tight tolerance

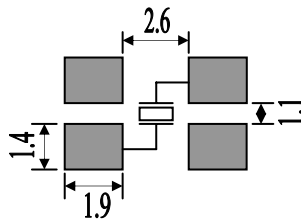


Pad #2 & #4 connected to metal lid



Bottom View

Pad Layout



Specification

Frequency range	8.0 ~ 110MHz
Adjustment@25°C	See Table 2
Temp. Stability	See Table 1
Temp. range	See Table 1
ESR	8 ~ 15.99MHz: 60Ω max. 16 ~ 39.9MHz: 50Ω max. (Fundamental) 30 ~ 49.9MHz: 100Ω max. (3 rd overtone) 50 ~ 110MHz: 90Ω max. (3 rd overtone)
Load capacitance	See Table 3
Shunt capacitance	4.0pF max
Drive level	10uW typ. 100uW max.
Storage temp.	-40 ~ +85°C
Ageing	5ppm/year max.

'*' suffix denotes RoHS Compliant

Standard packing: 1Kpcs per 7" taped reel

Ordering Code Guide

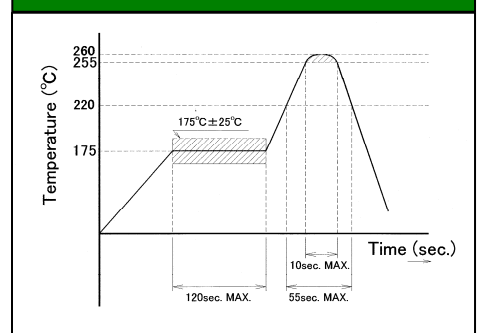
Series Code	Frequency	Specification	Holder Type	RoHS
X	xxMxxx	G C B E	SM53A	*

Magna use a 4 lettering coding system for defining standard specifications as shown below. Where other parameters are specified (such as C1 or pullability) then a customer specific datasheet will be produced. Other temperature ranges, stabilities, adjustments and load capacitances are available. Please contact us for advice.

1 st Letter	Temp. range	See Table 1
2 nd Letter	Temp. stability	See Table 1
3 rd Letter	Adjustment tolerance	See Table 2
4 th Letter	Load capacitance	See Table 3

Please note that not all combinations of temperature and stability are possible. Please see Table 1 for guide to availability.

Reflow Profile



Issue 2 01/07/10

Product Specification



This product is certified to comply with the RoHS Directive 2002/95/EC.



SM53A 4-pad SMD Crystal

Crystal Ordering Codes

Table 1: Temperature range v. Stability

Temp. Range & Stability		±3ppm	±5ppm	±7.5ppm	±10ppm	±15ppm	±20ppm	±30ppm	±50ppm
		K	J	H	G	F	E	B	C
0 ~ +50°C	J	✓	✓	✓	✓	✓	✓	✓	✓
-5 ~ +55°C	H	✓	✓	✓	✓	✓	✓	✓	✓
-10 ~ +60°C	G	-	✓	✓	✓	✓	✓	✓	✓
-20 ~ +70°C	E	-	✓	✓	✓	✓	✓	✓	✓
-30 ~ +80°C	C	-	-	✓	✓	✓	✓	✓	✓
-40 ~ +85°C	M	-	-	-	✓	✓	✓	✓	✓

Other temperature ranges and stabilities are available.

Table 2: Adjustment tolerance

±5ppm	±10ppm	±15ppm	±20ppm	±25ppm	±30ppm	±50ppm	±100ppm
J	G	F	E	D	B	C	A

Other adjustment tolerances are available.

Table 3: Load capacitance

10pF	12pF	16pF	18pF	20pF	30pF	32pF	Series
A	R	K	Q	C	E	F	S

Other load capacitances are available. Min. 6pF