



Quartz Crystal Series	<b>Features</b> ◆ RoHS Compliant    ◆ Ceramic/metal package	
5032B		

Electrical Specifications		
Item	Specifications	Remarks
Nominal Frequency Range	8.000MHz to 52.000MHz	Fund.; AT-Cut
	40.000MHz to 150.000MHz	3 <sup>rd</sup> O.T.;AT-Cut
Frequency Tolerance	±20ppm(Standard) at 25°C±3°C	Others are offered
Load Capacitance	Fund.:12pF to ∞,O.T.:12pF to ∞	Please specify
Series Resistance	As ESR table	
Shunt Capacitance	7pF Max	
Drive Level	100μW Max	
Operating Temperature	-20°C to +70°C(Standard)	Others are offered
Storage Temperature	-55°C to +150°C	
Stability vs. Temperature	±20ppm(Standard)	Others are offered
Insulated Resistance	500MΩ	Minimum
Aging	±2ppm/year	Maximum

ESR(Series Resistance)					
Frequency(MHz)	Mode	Ohm Max	Frequency(MHz)	Mode	Ohm Max
8~16	Fund.;AT	100	40~80	3 <sup>rd</sup> O.T.;AT	100
16~52	Fund.;AT	40	80~150	3 <sup>rd</sup> O.T.;AT	80

Stability vs. Temperature								
◆ Standard		1	2	3	5	6	7	Remarks
◇ Please specify		±10ppm	±20ppm	±30ppm	±50ppm	±15ppm	±100ppm	
B	-10°C to +60°C	◇				◇		
C	-20°C to +70°C	◇	◆	◇	◇	◇	◇	Standard
D	-40°C to +85°C		◇	◇	◆	◇	◇	
E	-45°C to +125°C				◆		◇	

Ordering Information											
Q	R	Type	Pin	XX.XXXX	M	Mode	CL pF	Freq.Tolerance at 25°C	Operating Temp.	Stability Vs.Temp.	Option
Q:Quartz	53:		B:4	Center frequency	M:	F:Fund.:AT	See	±10ppm to	See Table	See Table	F:Lead Free
R:Resonator	5.0*3.2mm			8.0 to 150.0MHz	MHz	O: 3 <sup>rd</sup> O.T.;AT	Table	±100ppm			Blank:T&R
<b>Example:QR53B12.0000MF12C2F</b> (Crystal,SMD5.0*3.2mm,4pins,12.0000MHz,16pF,+/-20ppm,-20 to +70deg,+/-20ppm.T&R,Lead free)											

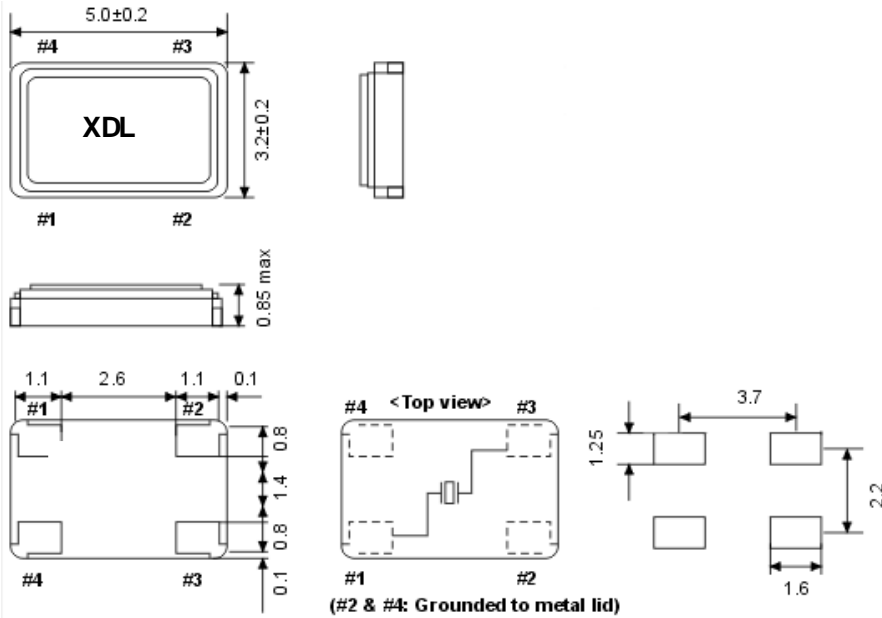
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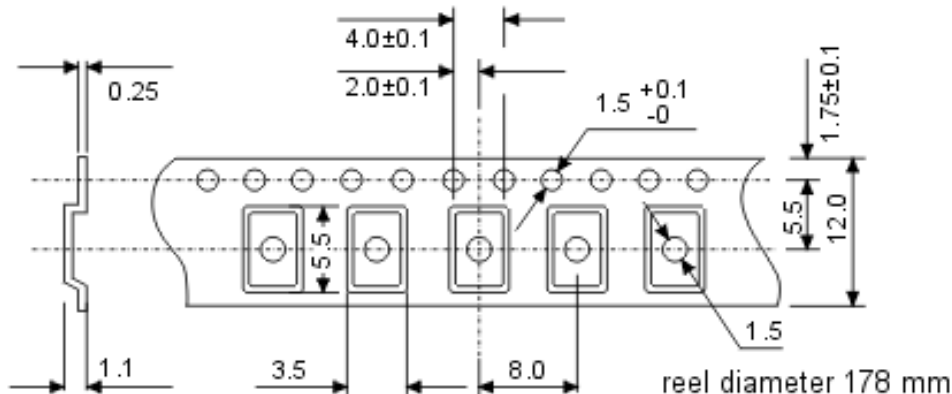
## Load Capacitance Codes

7pF:	E	8pF:	F	9pF:	B	10pF:	R
12pF:	T	15pF:	H	16pF:	I	18pF:	J
20pF:	K	22pF:	L	25pF:	G	27pF:	M
30pF:	N	32pF:	P	33pF:	W	Series:	S

## Dimensions



## Taping Specification



1000pcs/Reel



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Reflow Soldering Profile

