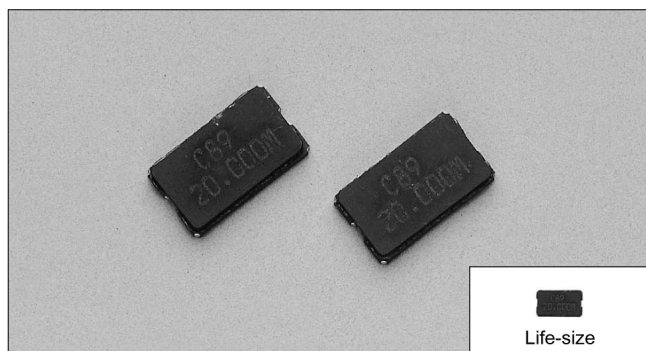


**AT-CUT CRYSTAL UNIT** (SMD • Ceramic Package)

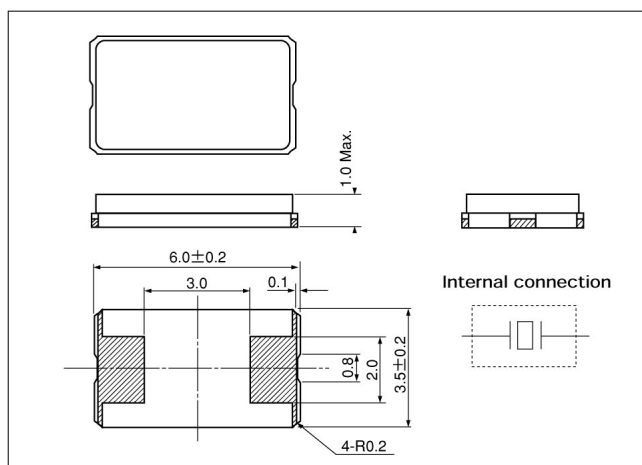
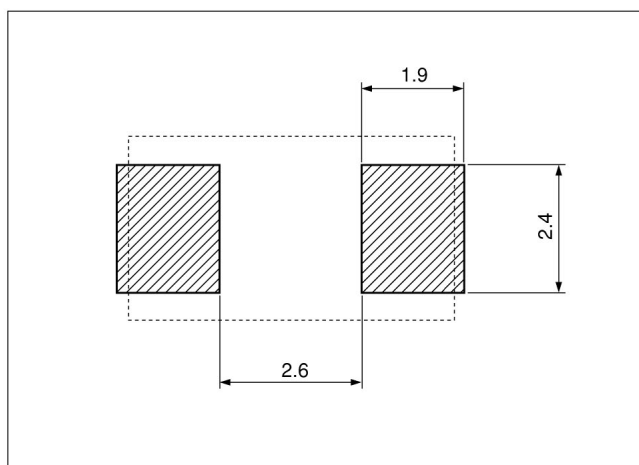
RoHS Compliant Standard

**CS10**

2000pcs/reel

**FEATURES**

- High-density SMD type.
- Reliable ceramic package and excellent environmental characteristics.
- Suitable for various applications such as communication devices, AV devices and other equipment.

**DIMENSION [mm]****SOLDER PAD LAYOUT [mm]****STANDARD SPECIFICATIONS**

Item	Model	CS10	Conditions
Nominal Frequency	$f_0$	12.0MHz~50.0MHz (Fundamental)	Need to contact us for the available frequency
Frequency Tolerance	$\Delta f/f_0$	±30ppm	at 25°C
Frequency Tolerance over Operating Temperature Range	$\Delta f/f_0$	±50ppm	-10°C ~ +60°C
Operating Temperature Range	$T_{OPR}$	-40°C ~ +85°C	
Storage Temperature Range	$T_{STR}$	-55°C ~ +125°C	
Motional (series) resistance	$R_1$	Refer to the following table	at 25°C
Load capacitance	$C_L$	18.0pF	Need to specify your requirement
Shunt capacitance	$C_0$	7.0pF Max.	
Level of drive	$D_L$	50 $\mu$ W	
Insulation Resistance	$I_R$	500M $\Omega$ Min.	DC100V±15V
Aging (first year)	$\Delta f/f_0$	±5ppm Max.	25°C ±3°C

**MOTIONAL (SERIES) RESISTANCE ( $R_1$ )**

Frequency Range	12.0MHz ≤ $f_0$ < 14.0MHz	14.0MHz ≤ $f_0$ ≤ 50.0MHz
$R_1$	70 $\Omega$ Max.	50 $\Omega$ Max.