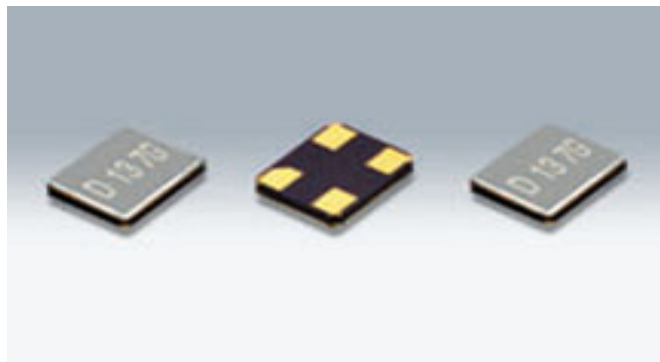


AT-CUT CRYSTAL UNIT (SMD • Ceramic Package)

RoHS Compliant Standard

SMD2016

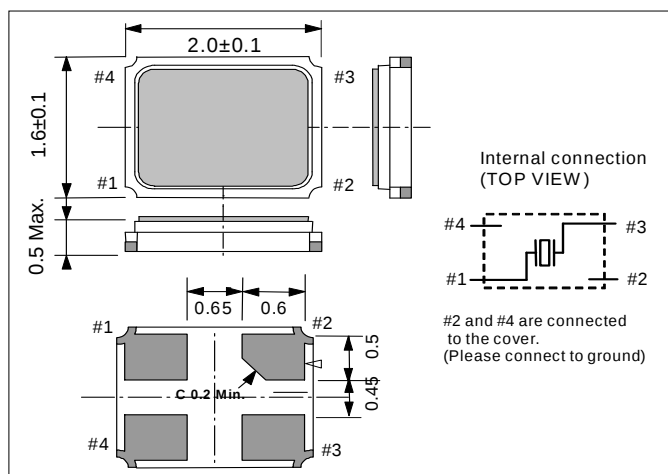
3000pcs/reel



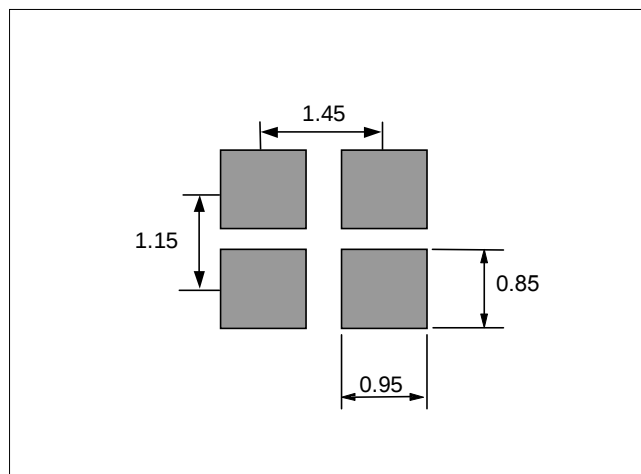
FEATURES

- 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	SMD3225	Conditions
Nominal Frequency	f_0	13.0MHz~54.0MHz (Fundamental)	Need to contact us for the available frequency
Frequency Tolerance	$\Delta f/f_0$	$\pm 30\text{ppm}$	at 25°C
Frequency Tolerance over Operating Temperature Range	$\Delta f/f_0$	$\pm 30\text{ppm}$	-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	16.0pF	Need to specify your requirement
Shunt capacitance	C_0	5.0pF Max.	
Level of drive	D_L	10 μW (100 μW Max.)	
Insulation Resistance		500M Ω Min.	DC100V $\pm 15\text{V}$
Aging (first year)	$\Delta f/f_0$	$\pm 5\text{ppm}$ Max.	25°C $\pm 3^\circ\text{C}$

MOTIONAL (SERIES) RESISTANCE (R_1)

Frequency Range	$13.0\text{MHz} \leq f_0 < 16.0\text{MHz}$	$16.0\text{MHz} \leq f_0 < 20.0\text{MHz}$	$20.0\text{MHz} \leq f_0 < 30.0\text{MHz}$	$30.0\text{MHz} \leq f_0 < 54.0\text{MHz}$
ESR	150 Ω Max.	120 Ω Max.	80 Ω Max.	50 Ω Max.