

AT-CUT CRYSTAL UNIT (SMD · Plastic Package)

RoHS compliant

CM309E

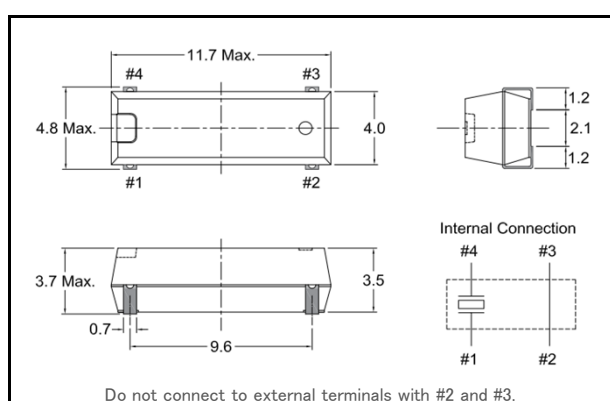
1,000pcs/reel



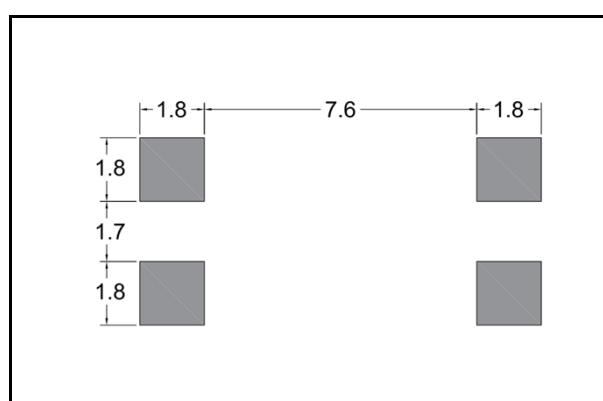
FEATURES

- Frequency range : 4.0 ~ 64.0MHz
- External dimensions (mm)
L : 11.7 x W : 4.8 x H : 3.7
- Applications
Consumer products

DIMENSION [mm]



SOLDER PAD LAYOUT [mm]



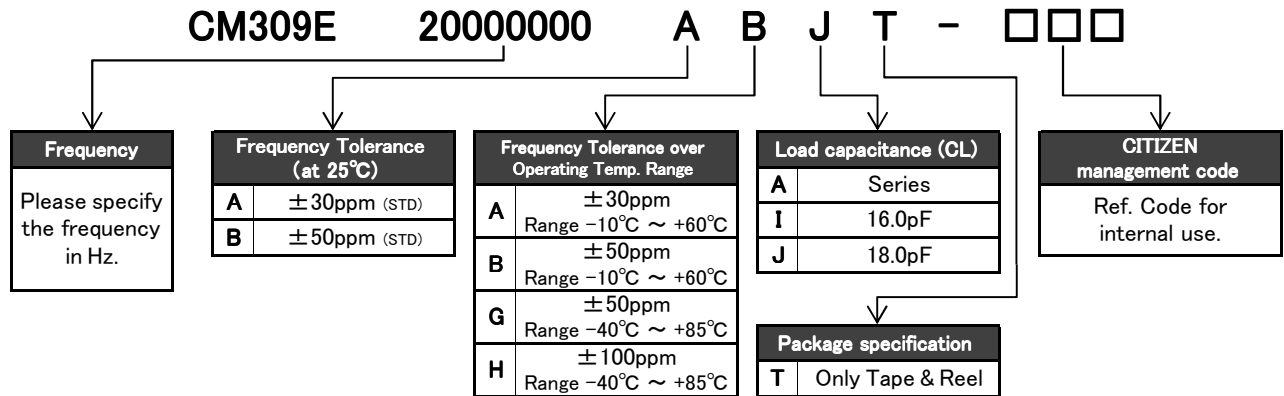
STANDARD SPECIFICATIONS

Item	Model	CM309E	Conditions
Nominal Frequency	f_0	4.0MHz ~ 29.999MHz (Fundamental) 30.0MHz ~ 64.0MHz (3rd Overtone)	Please contact us for frequencies available
Frequency Tolerance	$\Delta f/f_0$	$\pm 30\text{ppm}$	at 25°C
Frequency Tolerance over Operating Temperature Range	$\Delta f/f_0$	below 5.5MHz: $\pm 50\text{ppm}$ above 5.5MHz: $\pm 30\text{ppm}$	-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 / 18.0pF / Series	Please specify your requirement
Shunt capacitance	C_0	5.0pF Max.	
Level of drive	D_L	2mW Max.	
Insulation Resistance	I_R	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)

Freq. Range (MHz)	$4.0 \leq f_0 < 5.5$	$5.5 \leq f_0 < 6.0$	$6.0 \leq f_0 < 10.0$	$10.0 \leq f_0 < 12.0$	$12.0 \leq f_0 < 16.0$	$16.0 \leq f_0 < 30.0$	$30.0 \leq f_0 < 36.0$	$36.0 \leq f_0 < 64.0$
Mode	Fundamental	Fundamental	Fundamental	Fundamental	Fundamental	Fundamental	3rd Overtone	3rd Overtone
R_1	150 Ω Max.	100 Ω Max.	80 Ω Max.	60 Ω Max.	50 Ω Max.	40 Ω Max.	100 Ω Max.	80 Ω Max.

■ PART NUMBERING SYSTEM



*Please contact us for specifications available.

■ Part Marking [standard]



C AA : Manufacture's ID Code

y : The last digit of production year

m : Production month (See Table.1)

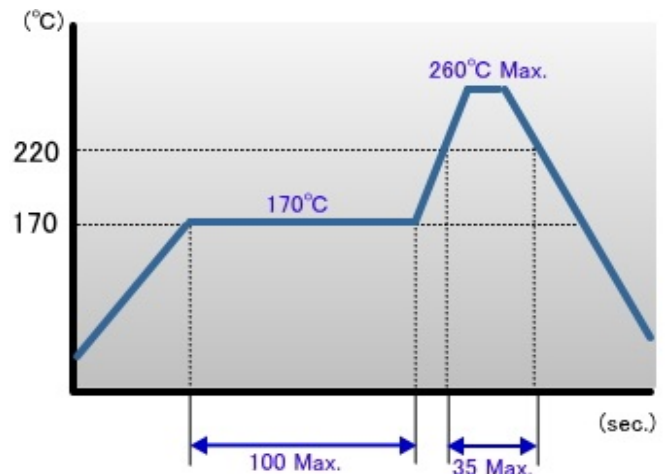
ff.fff : Frequency

M : MHz

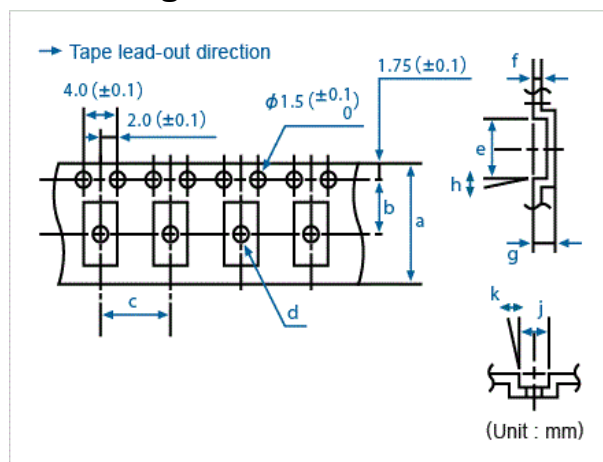
Table.1

Month	Jan	Feb	...	Sep	Oct	Nov	Dec
Code	1	2	...	9	X	Y	Z

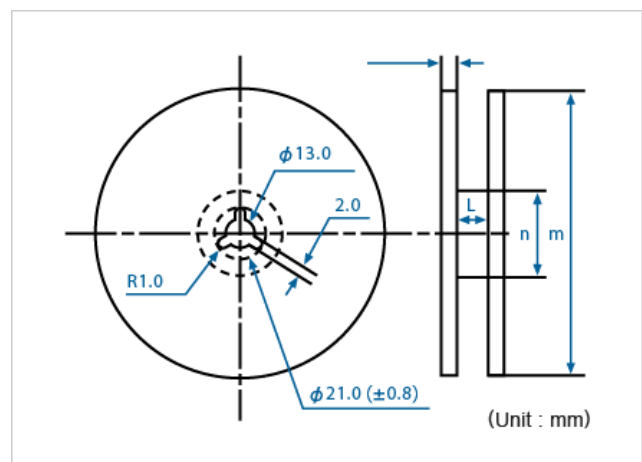
■ Reflow profile



■ Packing



Conforming to JIS C 0806 TB1208NEIAJ and RC-1009B TE1208N



Conforming to JIS C 0806 R12R and EIAJ RC-1009B R15

Q'ty/reel	a	b	c	d(ϕ)	e	f	g	h	j	k	l	m(ϕ)	n(ϕ)
1,000	24.0	11.5	12.0	1.5	11.9	0.4	4.0	5°	4.9	5°	25.5	330	100

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Citizen:

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[CM309E-7.680MABJ-UT](#) [CM309E-8.000MBBIUT](#) [CM309E-19.440MABJ-UT](#) [CM309E-16.000MBBKUT](#) [CM309E-14.1400MABA-UT](#) [CM309E-14.31818MABJ-UT](#) [CM309E-10.000MABIUT](#) [CM309E-10.000MABKUT](#) [CM309E-15.000MABJ-UT](#) [CM309E-18.000MABJ-UT](#) [CM309E-16.000MABJ-UT](#) [CM309E-16.384MABJ-UT](#) [CM309E-12.000MABJ-UT](#) [CM309E-4.000MBBN-UT](#) [CM309E-64.000MABJ-UT](#) [CM309E-40.000MABJ-UT](#) [CM309E-5.000MBBIUT](#) [CM309E-4.195212MABJ-UT](#) [CM309E-6.144MABJ-UT](#) [CM309E-60.000MABJ-UT](#) [CM309E-9.216MABN-UT](#) [CM309E-16.666MBBJ-UT](#) [CM309E-19.6608MABJ-UT](#) [CM309E-8.192MABJ-UT](#) [CM309E-22.1184MBBJUT](#) [CM309E-36.000MABJ-UT](#) [CM309E-10.000MBBIUT](#) [CM309E-11.2896MAAE-UT](#) [CM309E-7.3728MBGJ-UT](#) [CM309E-14.7456MBBA-UT](#) [CM309E-10.240MABJ-UT](#) [CM309E-11.0592MABKUT](#) [CM309E-12.000MAAQ-UT](#) [CM309E-6.000MAAE-UT](#) [CM309E-18.432MABJ-UT](#) [CM309E-15.360MABJ-UT](#) [CM309E-11.2896MABJ-UT](#) [CM309E-20.000MABE-UT](#) [CM309E-22.1184MABK-UT](#) [CM309E-24.000MBBKUT](#) [CM309E-49.152MABJ-UT](#) [CM309E-5.000MABIUT](#) [CM309E-6.000MABK-UT](#) [CM309E-7.3728MABJ-UT](#) [CM309E-24.000MABJ-UT](#) [CM309E-4.9152MBCKUT](#) [CM309E-53.125MABJ-UT](#) [CM309E-8.000MABJ-UT](#) [CM309E-33.333MABJ-UT](#) [CM309E-4.000MBBKUT](#) [CM309E-14.7456MABKUT](#) [CM309E-20.480MABJ-UT](#) [CM309E-24.7456MABJ-UT](#) [CM309E-25.000MABK-UT](#) [CM309E-4.000MBBIUT](#) [CM309E-20.000MABKUT](#) [CM309E-8.000MBBKUT](#) [CM309E-5.000MABJ-UT](#) [CM309E-33.8688MBBB-UT](#) [CM309E-16.000MBBI-UT](#) [CM309E-7.680MBBN-UT](#) [CM309E-12.288MABJ-UT](#) [CM309E-3.6864MBBIUT](#) [CM309E-32.000MABJ-UT](#) [CM309E-4.9152MABJ-UT](#) [CM309E-32.768MABJ-UT](#) [CM309E-6.000MABJ-UT](#) [CM309E-4.096MABJ-UT](#) [CM309E-4.000MABJ-UT](#) [CM309E-66.666MABJ-UT](#) [CM309E-3.579545MBBJUT](#) [CM309E-4.9152MBBKUT](#) [CM309E-9.8304MBBKUT](#) [CM309E-20.000MBBIUT](#) [CM309E-24.576MABJ-UT](#) [CM309E-29.4912MABJ-UT](#) [CM309E-3.6864MBCKUT](#) [CM309E-4.096MBBIUT](#) [CM309E-27.000MABJ-UT](#) [CM309E-47.940MABJ-UT](#) [CM309E-12.500MABJ-UT](#) [CM309E-19.6608MBBKUT](#) [CM309E-10.000MABJ-UT](#) [CM309E-11.0592MBBKUT](#) [CM309E-12.000MBBKUT](#) [CM309E-16.000312MABJ-UT](#) [CM309E-14.7456MBBK-UT](#) [CM309E-11.0592MABIUT](#) [CM309E-4.194304MABE-UT](#) [CM309E-8.000MABN-UT](#) [CM309E-15.360MBBIUT](#) [CM309E-18.432MBBK-UT](#) [CM309E-13.500MABJ-UT](#) [CM309E-9.8304MBBQ-UT](#) [CM309E-50.000MABJ-UT](#) [CM309E-3.6864MBBKUT](#)