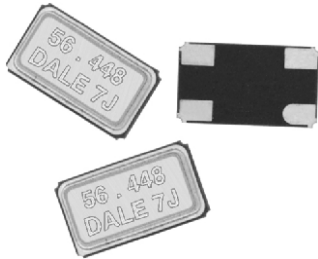


Surface Mount Crystal



FEATURES

- Ultra-miniature size: 6.0 x 3.5 x 1.0 (mm)
- Seam sealing
- Ceramic package
- Emboss taping
- Reflow soldering
- Compliant to RoHS directive 2002/95/EC


RoHS
COMPLIANT

This part is an ultra miniature package with size of 6.0 mm x 3.5 mm x 1.0 mm. With its ceramic base and metal cover it provides the durability and reliability necessary for strenuous process like infrared and vapor phase reflow.

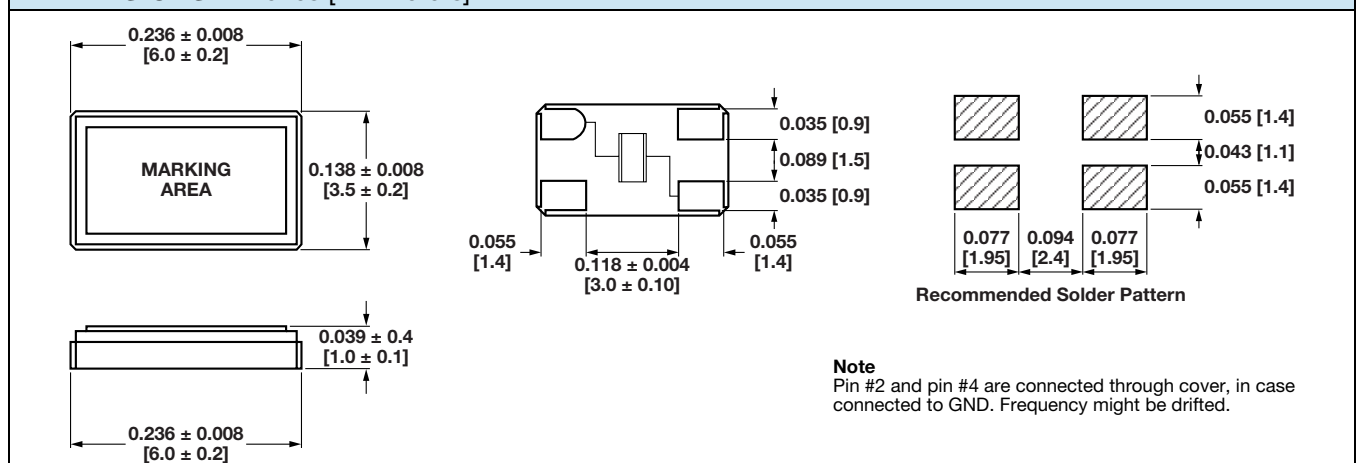
STANDARD ELECTRICAL SPECIFICATIONS

PARAMETER	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Frequency range	F_0		MHz	10.000	-	30.000
Frequency tolerance	$\Delta F/F_0$	at 25 °C	ppm	-	± 30	-
Temperature stability	T_C	ref. to 25 °C	ppm	-	± 30	-
Operating temperature range	T_{OPR}		°C	- 10	-	+ 60
Storage temperature range	T_{STG}		°C	- 40	-	+ 85
Shunt capacitance	C_0		pF	-	-	7
Load capacitance	C_L	customer specified	pF	10	-	series
Insulation resistance	I_R	100 V _{DC}	MΩ	500	-	-
Drive level	D_L		μW	-	10	100
Aging	F_a	at 25 °C, per year	ppm	- 5	-	+ 5

EQUIVALENT SERIES RESISTANCE (ESR) AND MODE OF VIBRATION (MODE)

FREQUENCY RANGE (MHz)	MAX. ESR (Ω)	MODE	FREQUENCY RANGE (MHz)	MAX. ESR (Ω)	MODE
10.000 to 11.999	60	fundamental	19.000 to 19.999	40	fundamental
12.000 to 12.099	50	fundamental	20.000 to 29.999	35	fundamental
13.000 to 18.999	45	fundamental	30.000	30	fundamental

DIMENSIONS in inches [millimeters]





ORDERING INFORMATION			
XT46C MODEL	-20 LOAD blank = series -20 = 20 pF standard -32 = 32 pF	25M FREQUENCY/MHz	e4 JEDEC LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER			
X T 4 6 MODEL	2 0 LOAD	A PACKAGE CODE	2 5 M FREQUENCY

GLOBAL PART NUMBERING				
X T 9 S MODEL NUMBER	2 0 LOAD CAPACITANCE	A PACKAGE CODE	N A OPTIONS	4 0 M FREQUENCY
XT9S = XT49S XT9M = XT49M XTU1 = XTUM1	18 = 18 pF 20 = 20 pF NL = series to be specified by customer	Tape and reel G = RF5 (XT9S) H = RF7 (XT9M) Bulk A = B04 (all models)	NA = no additional options RR = extended temperature of -40 °C to +85 °C Contact factory for all other options	4M = 4 MHz 40M = 40 MHz 100M = 100 MHz 12M288 = 12.288 MHz M is used as decimal place holder in frequency
Example: XT49S-20 40M				
X T 3 6 MODEL NUMBER	2 0 LOAD CAPACITANCE	A PACKAGE CODE	1 2 M FREQUENCY	
XT46 = XT46C XT36 = XT36C	18 = 18 pF 20 = 20 pF NL = series to be specified by customer	Tape and reel H = RF7 Bulk A = B04 (all models)	4M = 4 MHz 40M = 40 MHz 100M = 100 MHz 12M288 = 12.288 MHz M is used as decimal place holder in frequency	
Example: XT36C-20 12M				



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