

HC-49US Crystal Unit

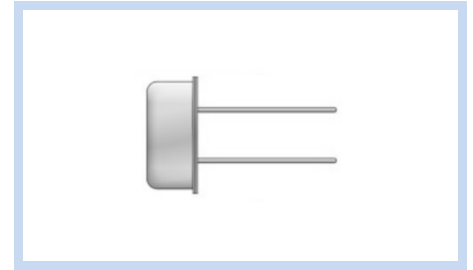
Low Profile Type

MXO series

MERITEK

FEATURE

- Hi Reliability
- Tight Stability, Industrial High Temps
- Resistance Welded Package
- High precision and high frequency stability
- Applications: Home Electronics, Computer Machines, Communications, Modems, Industrial Applications, Clocks, Microprocessors



PART NUMBERING SYSTEM

MXO F H J I 11M0 R
 (1) (2) (3) (4) (5) (6) (7)

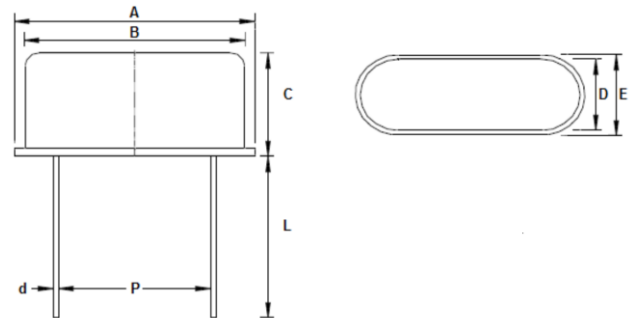


No	Item	Code	Description	Series Reference
(1)	Meritek Series	MXO	Crystal Unit	HC-49US
(2)	Load Capacitance	F	F: 20pF	E: 18pF, R: Series Resonance (see options)
(3)	Frequency Tolerance	H	H: ± 30 ppm	F: ± 20 ppm, G: ± 25 ppm (see options)
(4)	Stability vs Oper Temp.	J	J: ± 50 ppm	G: ± 25 ppm, H: ± 30 ppm (see options)
(5)	Operating Temp.	I	I: $-40 \sim +85^\circ\text{C}$	C: $-20 \sim +70^\circ\text{C}$, I: $-40 \sim +85^\circ\text{C}$ (see options)
(6)	Frequency	11M0	11M0: 11.00 MHz	3M579545 ~ 70M0 (M denotes decimal point)
(7)	Packaging	R	R: Tape and Reel	Blank: Bulk (Standard), R: Tape and Reel

DIMENSIONS AND RECOMMENDED PATTERN

Item	Size	Item	Size
A	11.5 max.	E	5.0 max.
B	10.3 max.	d	0.457 max.
C	3.5 max.	p	4.88 ± 0.20
D	3.8 max.	L	12.7 min.

(Unit: mm)



AVAILABLE OPTIONS

Parameters	Part Number Options
Load Capacitance	R: Series Resonance, 3: 3pF ~ 8: 8pF, A: 10pF, B: 12pF, C: 15pF, D: 16pF, E: 18pF, F: 20pF, K: 22pF, G: 25pF, H: 30pF, L: 32pF
Frequency Tolerance	A: ± 10 ppm, C: ± 15 ppm, F: ± 20 ppm, G: ± 25 ppm, H: ± 30 ppm, J: ± 50 ppm
Stability vs Oper Temp.	A: ± 10 ppm, C: ± 15 ppm, F: ± 20 ppm, G: ± 25 ppm, H: ± 30 ppm, J: ± 50 ppm, K: ± 100 ppm
Operating Temperature	B: $0 \sim +70^\circ\text{C}$, A: $-10 \sim +60^\circ\text{C}$, C: $-20 \sim +70^\circ\text{C}$, K: $-30 \sim +85^\circ\text{C}$, I: $-40 \sim +85^\circ\text{C}$, R: $-40 \sim +105^\circ\text{C}$

Note: Custom options available. Contact Meritek for more information.

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ELECTRICAL CHARACTERISTICS

Parameters		Characteristic
Nominal Frequency Range		3.579545 ~ 70.000 MHz
Operation Mode	Fundamental	3.579545 ~ 31.999 MHz
	3 rd Overtone	32.000 ~ 70.000 MHz (standard frequencies)
Load Capacitance		18.0 pF (see options)
Frequency Tolerance (at 25°C)		±30 ppm (see options)
Freq Stability over Oper Temp.		±50 ppm (see options)
Operating Temperature		-20 ~ +70°C (see options)
Storage Temperature		-55 ~ +125°C
Drive Level		1 mW max. (100 µW typ.)
Aging		±5 ppm / year
Shunt Capacitance		7.0 pF max.
Insulation Resistance		500 MΩ min. (@100Vdc ±15V)
Drive Level Dependency (DLD)		1 µW ~ 500 µW (min. 7 points tested)
Equivalent Series Resistance	3.579545 ~ 4.999 Fund.	180 Ω max.
	5.0 ~ 5.999 Fundamental	120 Ω max.
	6.0 ~ 7.999 Fundamental	100 Ω max.
	8.0 ~ 8.999 Fundamental	80 Ω max.
	9.0 ~ 9.999 Fundamental	60 Ω max.
	10.0 ~ 15.999 Fundamental	50 Ω max.
	16.0 ~ 31.999 Fundamental	40 Ω max.
	32.0 ~ 70.000 3 rd OT/AT	80 Ω max.

*Specifications subject to change without notice.