

Crystal Unit

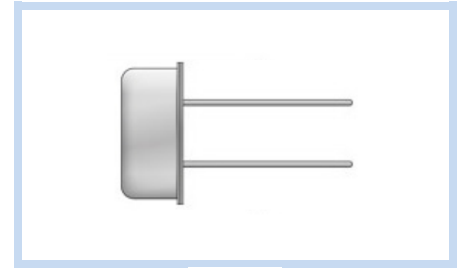
HC-49US 3.50mm MHZ Crystal

MXO Series

MERITEK

FEATURE

- Wide Frequency Range
- Resistance Welded
- High Precision and High Frequency Stability
- Applications: Data Application, Computer Machines, Printers, CPU, Memory, Test Equipment



ELECTRICAL CHARACTERISTICS

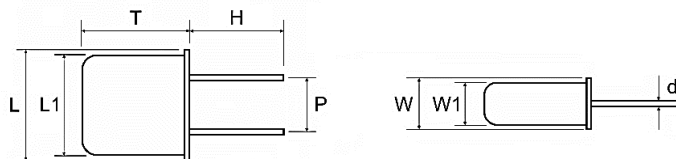
Item	Min	Typ	Max	Units
Nominal Frequency Range	3.072	-	100	MHz
Operation Mode	Fundamental, 3 rd Overtone, 5 th Overtone			--
Frequency Tolerance at 25°C ± 3°C	±10	±30	±50	ppm
Frequency Stability Range	±30	-	±50	
Operating Temperature Range	-40	-	+85	°C
Storage Temperature Range	-40	-	+85	
Load Capacitance, CL	6	-	Specify	pF
Shunt Capacitance, C0	-	-	7	
Equivalent Series Resistance	30	-	150	Ω
Drive Level	-	-	100	μW
Insulation Resistance, at 100VDC	500	-	-	MΩ
Frequency Aging First Year at 25°C ± 3°C	-5	-	5	ppm
Moisture Sensitivity Level, MSL	Level 1 (J-STD-033)			--

Note: see the parts number system for other options

STANDARD ESR

Frequency (MHz)	Operation Mode	ESR Max (Ω)	Frequency (MHz)	Operation Mode	ESR Max (Ω)
3.0 ~ 4.0	Fundamental	150	16.1 ~ 48.0	Fundamental AT	30
4.1 ~ 6.0	Fundamental	80	24.1 ~ 40.0	3rd Overtone	100
6.1 ~ 8.0	Fundamental	50	40.1 ~ 80.0	3rd Overtone	50
8.1 ~ 16.0	Fundamental	40	50.0 ~ 100.0	5th Overtone	100

DIMENSIONS



Unit: mm

Series	L	L1	W	W1	T	H	P	d
MXO	11.50 max	10.24 max	4.65 max	3.70 max	3.50 max	12.7 min	4.88 ±0.20	0.43 ±0.05

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PART NUMBERING SYSTEM

MXO E H J I 12M0
 (1) (2) (3) (4) (5) (6)

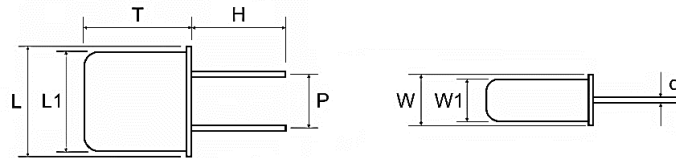
No.	Item	Code	Description	
(1)	Meritek Series	MXO	HC-49US Crystal, MHz 11.50x4.65x3.50mm	
(2)	Load Capacitance	E	E: 18pF	6~Specify pF, See option table
(3)	Frequency Tolerance	H	H: ±30ppm	±10~±50ppm, See option table
(4)	Frequency Stability	J	J: ±50ppm	±30~±50ppm, See option table
(5)	Operating Temperature	I	I: -40~+85°C	See option table
(6)	Frequency	12M0	12M0: 12.00MHz	3M072~100M0, M: denotes decimal point

PRODUCTS OPTION CODE

Load Capacitance	(pF)	3	4	5	6	7	8	9	10	12	15	16	18	20	22	25	30	32	*
	Code	3	4	5	6	7	8	9	A	B	C	D	E	F	K	G	H	L	Z
Frequency Tolerance	(ppm)	±10		±15		±20		±25		±30		±50		±100		*			
	Code	A		C		F		G		H		J		K		Z			
Frequency Stability	(ppm)	±10		±15		±20		±25		±30		±50		±100		*			
	Code	A		C		F		G		H		J		K		Z			
Operating Temperature	(°C)	-40~70		-40~85		-40~105		-40~125		-40~150		-10~60		0~70		*			
	Code	4		3/I		2/R		1/Y		0		A		B		Z			
Operating Temperature	(°C)	-55~70		-55~85		-55~105		-55~125		-55~150		-20~70		-30~85		*			
	Code	9		8		7		6		5		C		K		Z			

Note: * Z: None Standard, Custom options available. Contact Meritek for more information

DIMENSIONS – MXx Series



Unit: mm

Series	L	L1	W	W1	T	H	P	d
MXO	11.50 max	10.24 max	4.65 max	3.70 max	3.50 max	12.7 min	4.88±0.20	0.43±0.05
MXF	11.05 max	10.24 max	4.65 max	3.8 max	13.46 max	12.7 min	4.88±0.20	0.45±0.05

Note: Specifications subject to change without notice.