

● FEATURES

- TIGHT TOLERANCE AND STABILITY OVER TEMPERATURE
- WIDE FREQUENCY RANGE
- EXCELLENT FREQUENCY SOURCE FOR TELECOM APPLICATIONS

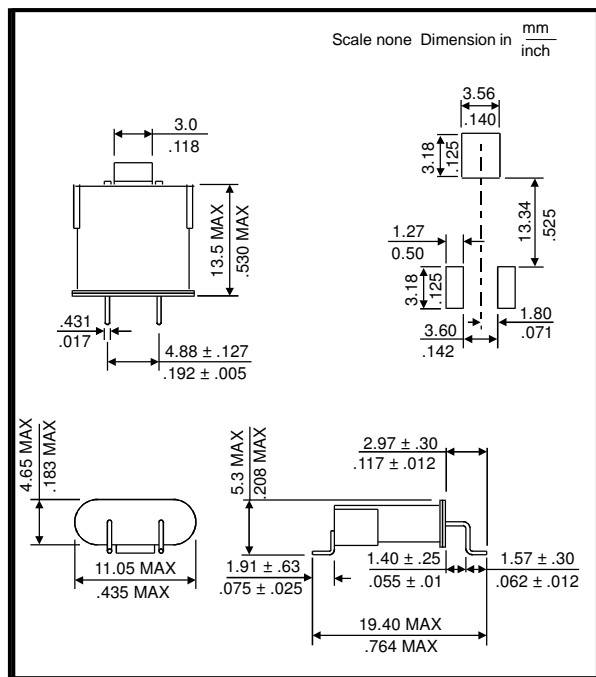
● SPECIFICATIONS

FREQUENCY RANGE	1.00 MHz TO 360.00 MHz	
HOLDER TYPES	A-SMD: HC-49/U-SMD	1.00 MHz TO 360.00 MHz
	C-SMD: UM-1 SMD	8.00 MHz TO 200.00 MHz
FREQUENCY TOLERANCE AT 25° C	±5 PPM TO ±25 PPM	
FREQUENCY STABILITY OVER TEMPERATURE RANGE	±3PPM TO ±10PPM(-10°C TO +60°C) ±15 TO ±50 PPM (-40°C TO + 85°C)	
EXTENDED TEMPERATURE RANGE	-40°C TO + 85°C MAXIMUM	
LOAD CAPACITANCE	10 pF TO 32 pF OR SERIES	
AGING PER YEAR	±3 PPM MAXIMUM	
MODE OF OSCILLATION (SEE PAGE 2)	FUNDAMENTAL TO NINTH OVERTONE	
EQUIVALENT SERIES RESISTANCE (ESR)	SEE PAGE 2	
DRIVE LEVEL	0.1 mW TYPICAL	

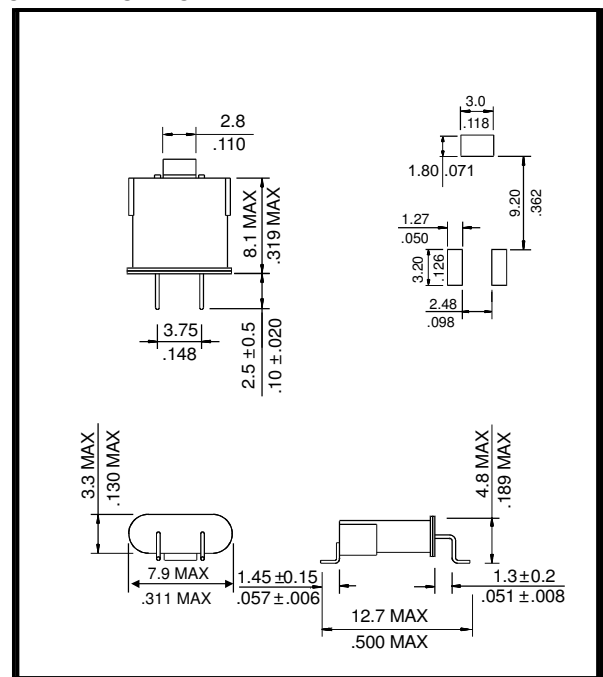


● OUTLINE DRAWINGS

A-SMD TYPE: HC-49/U-SMD



C-SMD TYPE: UM-1-SMD



● PART NUMBERING SYSTEM

HOLDER TYPE		FREQUENCY	LOAD CAPACITANCE	MODE		TOLERANCE/STABILITY	EXTENDED TEMPERATURE	SURFACE MOUNT	
A	HC-49/U-SMD	IN MHZ	10 TO 32pF FOR PARALLEL S FOR SERIES	F	FUNDAMENTAL	EX. 1010, 1530 (PPM / PPM)	EXT	SMD	
C	UM-1-SMD			3OT	THIRD OVERTONE				5OT

EXAMPLE: A-32.000-20-3OT-SMD
C-100.00-S-5OT-SMD

● EQUIVALENT SERIES RESISTANCE VERSUS FREQUENCY AND PACKAGE

FREQUENCY MHz	HOLDER TYPE		ESR		
	HC-49/U "A"	UM-1 "C"	" "	"A"	"C"
1.000	A			700	
1.843	A			700	
2.000	A			500	
2.097152	A			500	
2.4576	A			400	
3.000	A			200	
3.2768	A			180	
3.579545	A			180	
3.600	A			160	
3.6864	A			140	
4.000	A			80	
4.096	A			80	
4.194304	A			80	
4.433619	A			80	
4.9152	A			60	
5.000	A			60	
5.0688	A			60	
5.185	A			60	
5.7143	A			50	
5.9904	A			50	
6.000	A			50	
6.144	A			40	
6.400	A			40	
6.5536	A			40	
7.000	A			30	
7.15909	A			30	
7.3728	A			30	
8.000	A	C		30	
9.216	A	C		30	
9.8304	A	C		30	
10.000	A	C		25	50
10.738635	A	C		25	50
11.000	A	C		25	50
11.050	A	C		25	50

FREQUENCY MHz	HOLDER TYPE		ESR		
	HC-49/U "A"	UM-1 "C"	" "	"A"	"C"
11.059	A	C		25	50
12.000	A	C		25	40
12.288	A	C		25	40
13.5168	A	C		25	40
14.31818	A	C		25	35
14.7456	A	C		25	35
15.000	A	C		25	35
16.000	A	C		25	30
16.384	A	C		25	35
17.360	A	C		25	30
18.000	A	C		20	25
18.432	A	C		20	30
19.354	A	C		20	30
19.6608	A	C		20	30
20.000	A	C		20	30
22.1184	A	C		20	25
23.400	A	C		20	25
24.000	A	C		20	25
24.576	A	C		30	25
25.000	A	C		30	20
27.000	A	C		30	20
30.000	A	C		30	20
32.000	A	C		30	60
36.000	A	C		30	60
40.000	A	C		30	50
48.000	A	C		30	50
60.000	A	C		30	40
70.000	A	C		30	40
80.000	A	C		30	40
90.000	A	C		40	40
100.000	A	C		40	100
150.000	A	C		50	70
200.000	A	C		100	120
300.000	A			150	

● FREQUENCY RANGE AND MODE OF OSCILLATION BY HOLDER TYPE

HOLDER TYPE	FUNDAMENTAL (FUND)	THIRD OVERTONE (3OT)	FIFTH OVERTONE (5OT)	SEVENTH OVERTONE (7OT)	NINTH OVERTONE (9OT)
TYPE A: HC-49/U	1.00 MHz TO 65.00 MHz	20.00 MHz TO 90.00 MHz	60.00 MHz TO 130.00 MHz	125.00 MHz TO 200.00 MHz	180.00 MHz TO 300.00 MHz
TYPE C: UM-1	8.00 MHz TO 65.00 MHz	25.00 MHz TO 90.00 MHz	60.00 MHz TO 130.00 MHz	125.00 MHz TO 200.00 MHz	