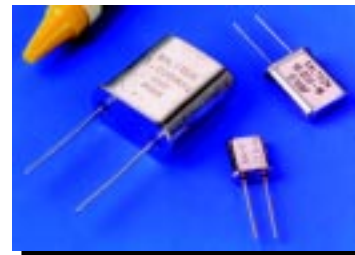


● FEATURES

- EXCELLENT CLOCK SIGNAL GENERATOR FOR CPU'S
- WIDE FREQUENCY RANGE
- INDUSTRY STANDARD PACKAGES

● SPECIFICATIONS

FREQUENCY RANGE		100.00 KHz TO 300.00 MHz
HOLDER TYPES	A: HC-49/U	1.00 MHz TO 300.00 MHz
	B: HC-51/U	100.00 KHz TO 4.00 MHz
	C: UM-1	8.00 MHz TO 300.00 MHz
FREQUENCY TOLERANCE AT 25 °C		±30 PPM TYPICAL ±50 PPM MAXIMUM
FREQUENCY STABILITY OVER TEMPERATURE		±50 PPM TYPICAL ±100 PPM MAXIMUM
OPERATING TEMPERATURE RANGE		-20 °C TO +70 °C STANDARD
		-40° C TO +85 °C EXTENDED
STORAGE TEMPERATURE RANGE		-55 °C TO +125 °C
AGING		±5 PPM PER YEAR MAXIMUM
LOAD CAPACITANCE		10 TO 32 pF 0R SERIES
SHUNT CAPACITANCE		7 pF MAXIMUM
EQUIVALENT SERIES RESISTANCE (ESR)		SEE PAGE 11
DRIVE LEVEL		0.1 mW TYPICAL 1 mW MAXIMUM
SHOCK RESISTANCE		±5 PPM MAXIMUM 75 cm DROP TEST IN 3 AXES ONTO A HARD SURFACE OR 1000 g's x 0.5 ms x ½ SINEWAVE IN 3 AXES



● 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 B: HC-51/U	100.00 KHz TO 4.00 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	180.00 MHz TO 300.00 MHz

● PART NUMBERING SYSTEM

HOLDER TYPE			FREQUENCY		LOAD CAPACITANCE		MODE			EXTENDED TEMPERATURE
A B C	HC-49/U HC-51/U UM-1	-	IN MHz	-	10 TO 32pF FOR PARALLEL S FOR SERIES	-	F 3OT 5OT 7OT 9OT	FUNDAMENTAL THIRD OVERTONE FIFTH OVERTONE SEVENTH OVERTONE NINTH OVERTONE	-	EXT

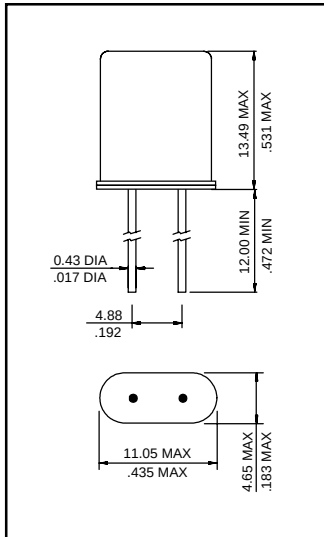
MECHANICAL OPTIONS							TAPE AND REEL
THREE PIN BASE	-	THIRD LEAD (TOP OF HOUSING)	-	SPACER	-	SLEEVE	TR
3PIN		3RD		SP		SL	

† FUNDAMENTAL MODE NOT NEEDED IN PART NUMBER

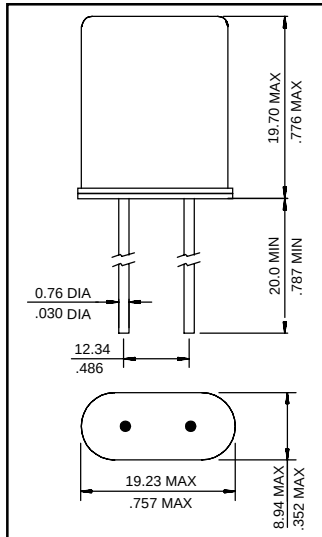
EXAMPLE: A-4.000-S

A-3.579545-18-EXT-3PIN-SP-SL-TR

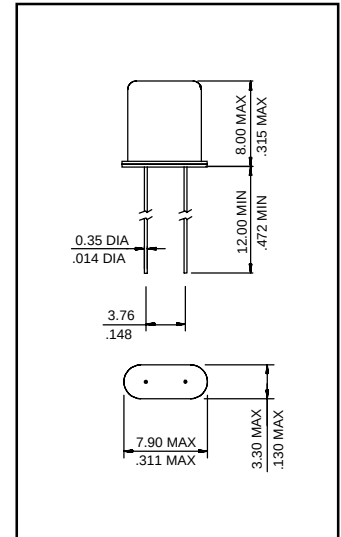
C-65.000-S-30T



TYPE A (HC-49/U)

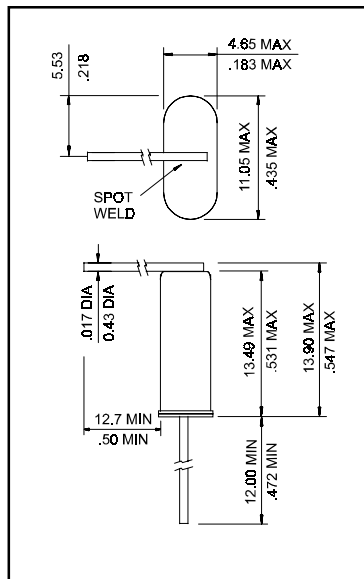


TYPE B (HC-51/U)

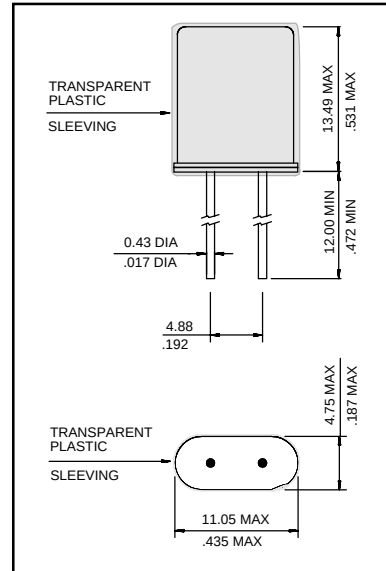


TYPE C (UM-1)

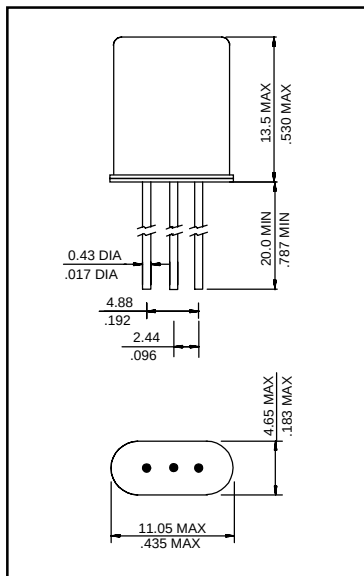
PACKAGE OPTIONS



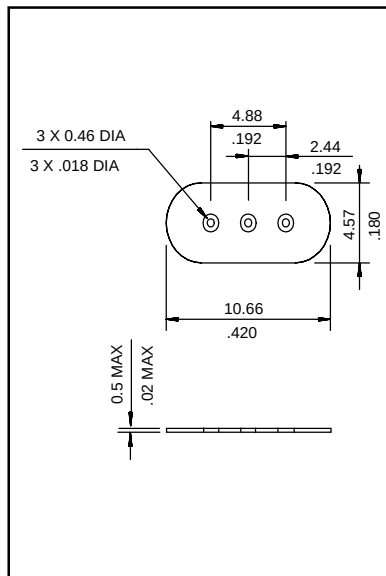
THIRD LEAD OPTION: 3RD



PLASTIC SLEEVE OPTION: SL



3 LEAD BASE OPTION: 3PIN



PLASTIC SPACER OPTION: SP

FREQUENCY MHz	HOLDER TYPE			ESR			
	HC-51/U "B"	HC-49/U "A"	UM-1 "C"	"B"	"A"	"C"	
1.000	B	A		700	700		
1.843	B	A		600	700		
2.000	B	A		500	500		
2.097152	B	A		500	500		
2.4576	B	A		400	400		
3.000	B	A		150	200		
3.2768	B	A		150	180		
3.579545	B	A		120	180		
3.600	B	A		100	160		
3.6864	B	A		100	140		
4.000	B	A		50	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		30				
9.216	A		30				
9.8304	A		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-51/U "B"	HC-49/U "A"	UM-1 "C"	"B"	"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	C	150	180		

Technical drawing of the HC-49/U ONLY component, showing dimensions in inches.

Top View Dimensions:

- Overall width: 12.7 ± 1.0
- Distance between mounting holes: $.500 \pm .04$
- Distance from mounting hole to center of crystal: 3.91 ± 0.7
- Distance from mounting hole to center of crystal (alternative): $.15 \pm .03$
- Distance from mounting hole to center of crystal (alternative): 16.21
- Distance from mounting hole to center of crystal (alternative): $0.63-0.82$
- Distance from mounting hole to center of crystal (alternative): 12.7 ± 0.3
- Distance from mounting hole to center of crystal (alternative): $.500 \pm .012$
- Distance from mounting hole to center of crystal (alternative): 4.88 ± 0.2
- Distance from mounting hole to center of crystal (alternative): $0.19 \pm .024$
- Distance from mounting hole to center of crystal (alternative): $4.0 \pm 0.2 \text{ DIA}$
- Distance from mounting hole to center of crystal (alternative): $.160 \pm .008 \text{ DIA}$

Side View Dimensions:

- Overall height: 32.2 MAX
- Distance from mounting hole to center of crystal: 1.268 MAX
- Distance from mounting hole to center of crystal: 9.0 ± 0.75
- Distance from mounting hole to center of crystal: $.35 \pm .03$
- Distance from mounting hole to center of crystal: 15.5 MAX
- Distance from mounting hole to center of crystal: 6.10 MAX
- Distance from mounting hole to center of crystal: 18.0 ± 2.0
- Distance from mounting hole to center of crystal: $.709 \pm .079$

End View Dimensions:

- Overall width: 0 ± 2.0

370 mm REEL DIAMETER, 18 mm TAPE WIDTH, 12.7 mm PITCH, QUANTITY 1000 PIECES PER REEL