

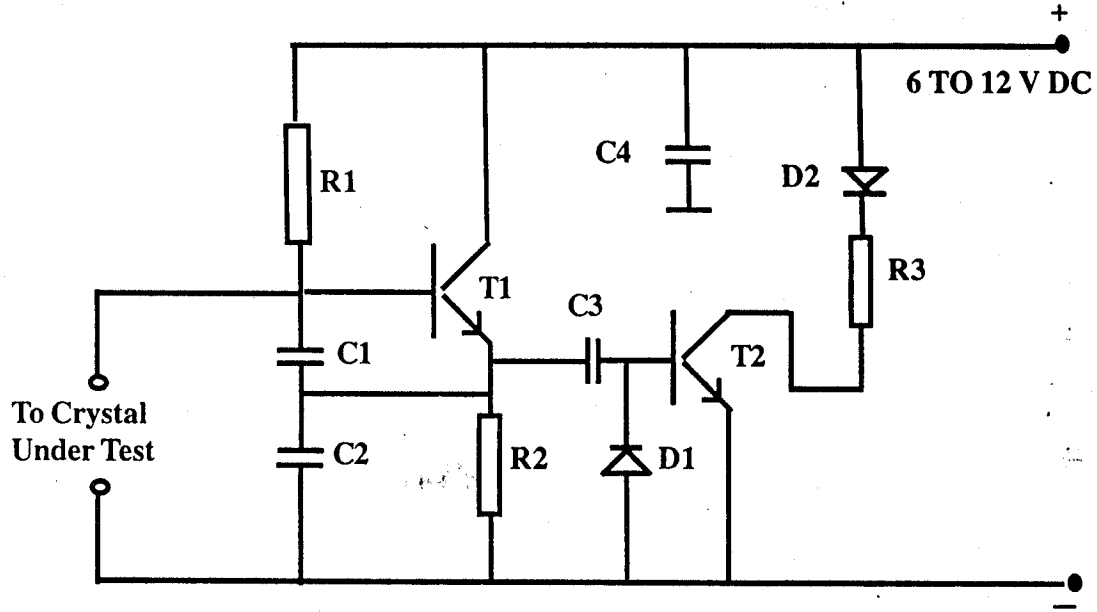
APPENDIX

CRYSTAL TESTER

Crystals are essential part of ham radio equipments . Crystals cannot be tested using a multimeter . So we are proving here a circuit of crystal tester . The LED will indicate whether the crystal under test is O.K or not . The circuit is given in the next page . The component details are given below .

COMPONENT DETAILS FOR CRYSTAL TESTER

No.	Item ID.	Description .
1.	R1	100 K
2.	R2	2.2 K
3.	R3	330 OHM
4.	C1	220
5.	C2	220
6.	C3	100
7.	C4	0.1
8.	D1	IN 4148
9.	D2	LED
10.	T1	BC 547
11.	T2	BC 548



CIRCUIT DIAGRAM OF CRYSTAL TESTER