

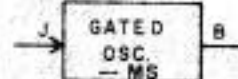
EC 43

172436

GATED OSCILLATOR  
10 TO 250 MS

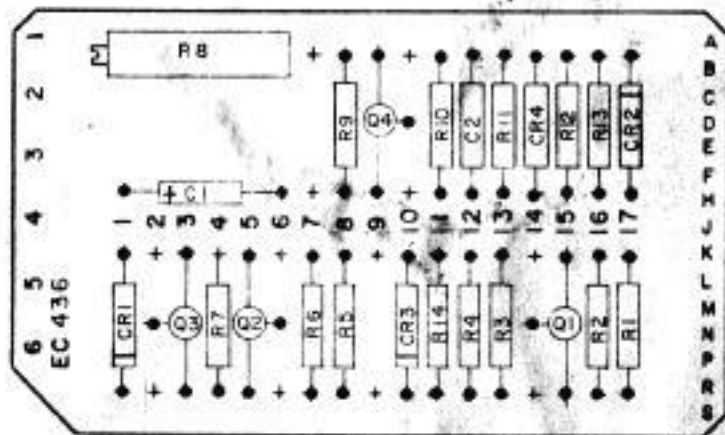
CIRCUIT BOARD EC

SYMBOLS

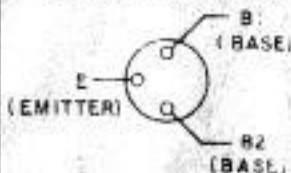


ISSUE	DATE	AUTH NO

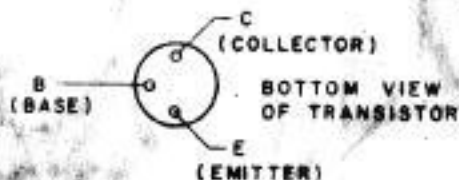
This circuit operates as a gated oscillator. It consists of four main parts: Input control transistor Q1, Oscillator control SCR, Q2, Oscillator Uni Junction Transistor, Q3, and Output Transistor Q4. The input control transistor which operates on a -6 volt and 0 volt signal, supplies the necessary current and voltage to Q1 - the oscillator control SCR, Q2. The SCR will conduct until the timing capacitor C of the oscillator is completely discharged, unless gate current to the SCR is continuously being supplied. The condition for oscillation is that the SCR must not be conducting. The period of oscillation is dependent on the timing resistor R8, 250K and will vary from 10 to 250MS. Negative going pulses appearing at the base of Q1 are inverted and appear as -6 TO 0 VOLT PULSES OF APPROXIMATELY 10 USECS DURATION AT THE OUTPUT.



BOTTOM VIEW OF UNIJUNCTION TRANSISTOR

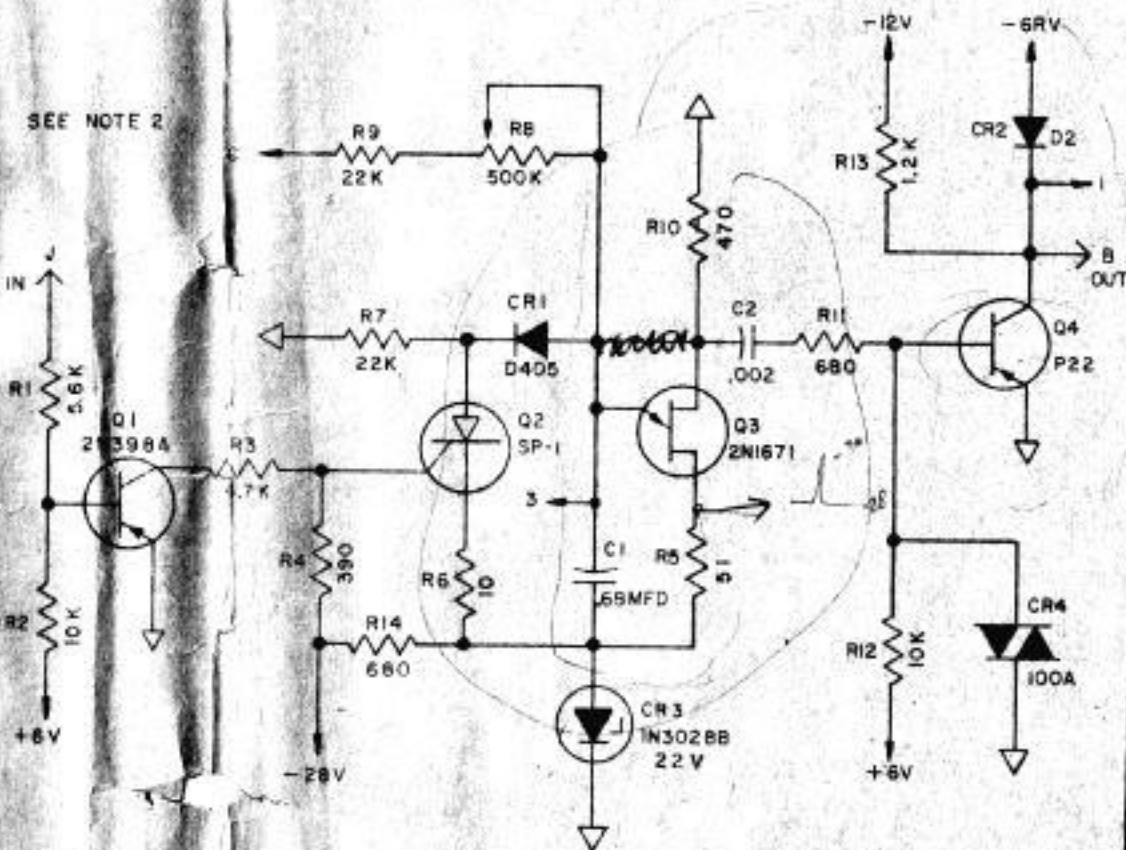


BOTTOM VIEW OF SILICON CONTROLLED RECTIFIER

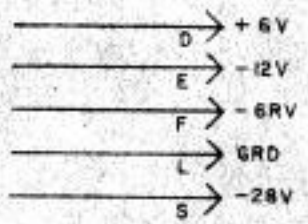


NOTE: REFER TO 50J6WD FOR MARKING INFORMATION P.

REF. DESIGN	TELETYPE PART NO.	TOTAL QTY.	NAME AND DESCRIPTION	LOCATING FUNCTION
C1	192932	1	Capacitor - .68 MFD	Timing
C2	177332	1	Capacitor - .002 MFD	Coupling
CR1	177409	1	Diode 1N4005	Gate
CR2	177108	1	Diode D2	Clamp
CR3	300015	1	Zener Diode-24 Volts 1W	VOLTAGE REGULATOR
CR4	178844	1	VARISTOR	BASE BIAS
R1	118186	1	Resistor Fixed 5.6K ohm	Base Input
R2	118180	2	Resistor Fixed 10K	Base Bias
R3	118146	1	RESISTOR FIXED 4.7 OHM	Gate Input
R4	143662	1	Resistor Fixed 390	Gate Bias
R5	143656	1	Resistor Fixed 51	Base 1 Load
R6	171468	1	Resistor Fixed 10	Cathode Load
R7	118177	2	Resistor Fixed 22K	Anode Load
R8	300022	1	Resistor Variable 500K	Timing
R9			Same as R7	Timing
R10	137602	1	Resistor Fixed 470	Base 2 Load
R11	129850	2	Resistor Fixed 680	Base Input
R12			Same as R2	Base Bias
R13	137441	1	Resistor Fixed 1.2K	Collector Load
R14			SAME AS R11	
Q1	177224	1	Transistor 2N398A	Control
Q2	177100	1	Silicon Controlled Rect.	SCR Control
Q3	177610	1	Transistor Uni Junction 2N1671	Oscillator
Q4	177105	1	Transistor P22	Amplifier
EC	300015	1	Circuit Card, Etched	



NOTE:  
1. Card connections are represented by letters test points are represented by numbers.  
2. Terminal C can be connected to an external variable resistor to ground. Terminal C should be connected to ground when external variable resistor is not used.



**APPROVALS**

D AND R	E OF M

E-NUMBER  
PROD. NO. 172436  
DATE 12-17-62  
P.O. FILE NO. G-A.353.219A  
DRAWN P.K. CHKD  
ENGR. E.H.P. APPR.  
**TELETYPE CORPORATION**