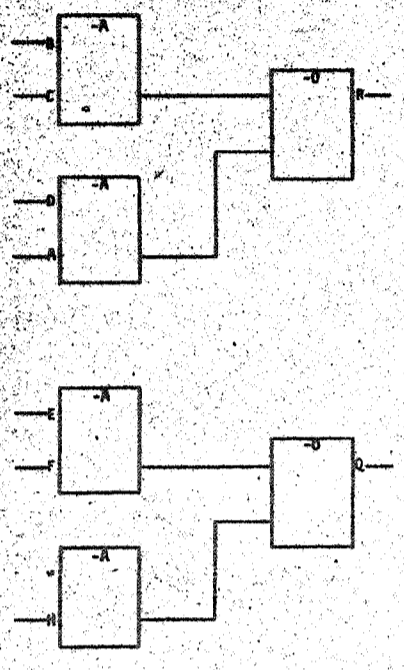


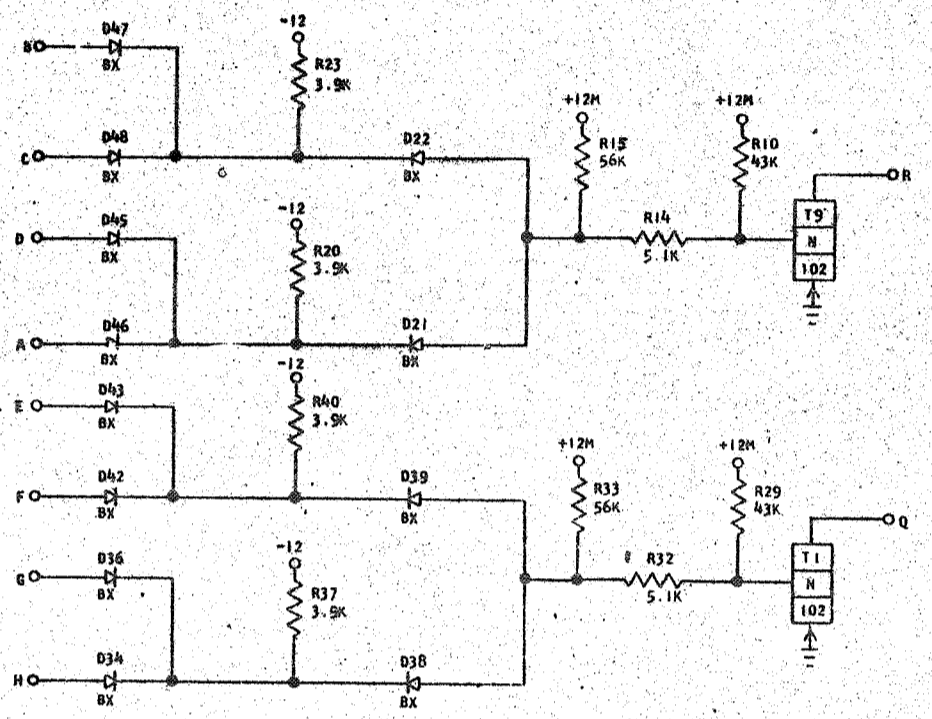
729927
STANDARD CODE

CARD CODE 729927
D H H -

REFERENCE DRAWING
SEE PRODUCTION DRAWING 370358



SQTDL DOUBLE LEVEL LOGIC BLOCK #2A LOW SPEED, WO LOADS



SEQUENCE OF OPERATION

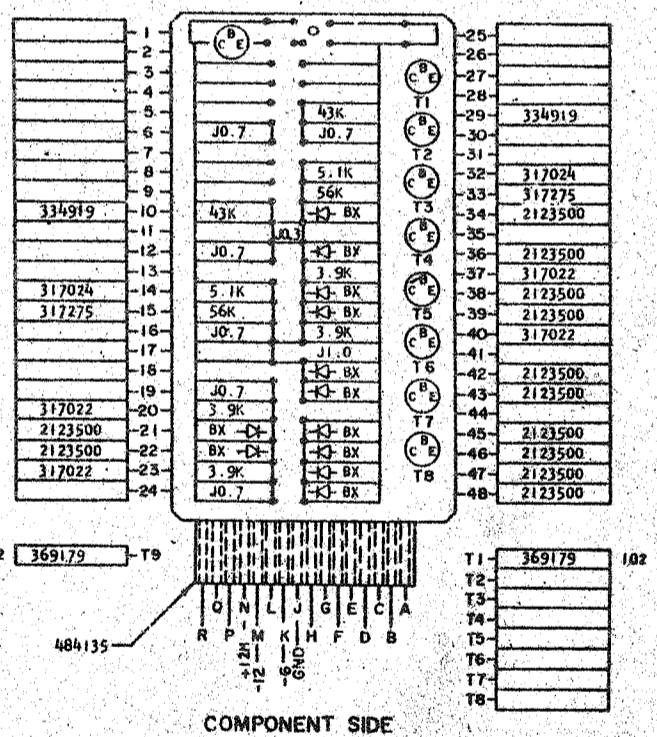
1. PINS B AND C MUST BE DOWN TO HAVE A DOWN LEVEL AT D22
2. PINS D AND A MUST BE DOWN TO HAVE A DOWN LEVEL AT D21
3. EITHER LEVEL DOWN AT D21 OR D22 WILL CAUSE THE TRANSISTOR TO TURN ON, THE OUTPUT WILL BE UP
4. EITHER B OR C UP WILL CAUSE AN UP LEVEL AT D22
5. EITHER D OR A WILL CAUSE AN UP LEVEL AT D21
6. BOTH LEVELS AT D21 AND D22 MUST BE UP TO TURN THE TRANSISTOR OFF, THE OUTPUT WILL BE DOWN
7. T1 AND T9 MUST BE COLLECTOR LOADED

PINS	SIGNAL NAME	WAVE SHAPE	LEVELS	
			MIN	MAX
B, C D, A	Y INPUT	[Waveform]	UP	-0.65 - -1
R	Y OUTPUTS	[Waveform]	DOWN	-5.81 - -8.8
E, F G, H	Y INPUTS	[Waveform]	UP	-0.65 - -1
Q	Y OUTPUTS	[Waveform]	DOWN	-5.81 - -8.8

DELAY - NSEC

	MIN.	MAX
TURN ON	70	240
TURN OFF	110	515

NOTE: MAXIMUM DELAY MAY INCREASE FOR A 6.2K COLLECTOR RESISTOR.



CIRCUIT AND PACKAGING STANDARD

APPROVAL	DATE
ABC	4-2-62

INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD: ASM TSTR-SQTDL-DOUBLE	-62	115599					
LEVEL: LB #2A LOW SPEED, WO LOADS							
DESIGN NO. 3-1-62	SCALE NONE						
CHECK NO. 3-1-62	DRAW LIG 3-17-62						
APPROV	CHECK						

729927

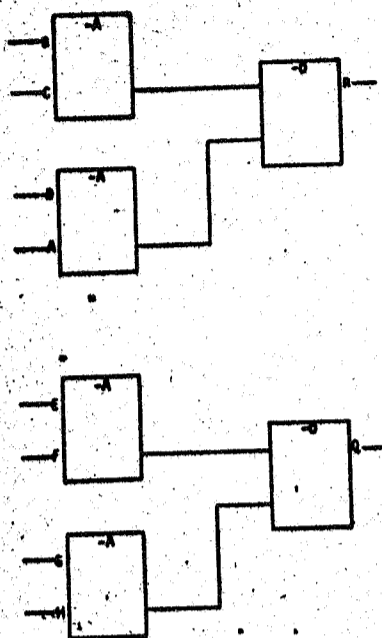
QMSD CODE 729927

D H H -

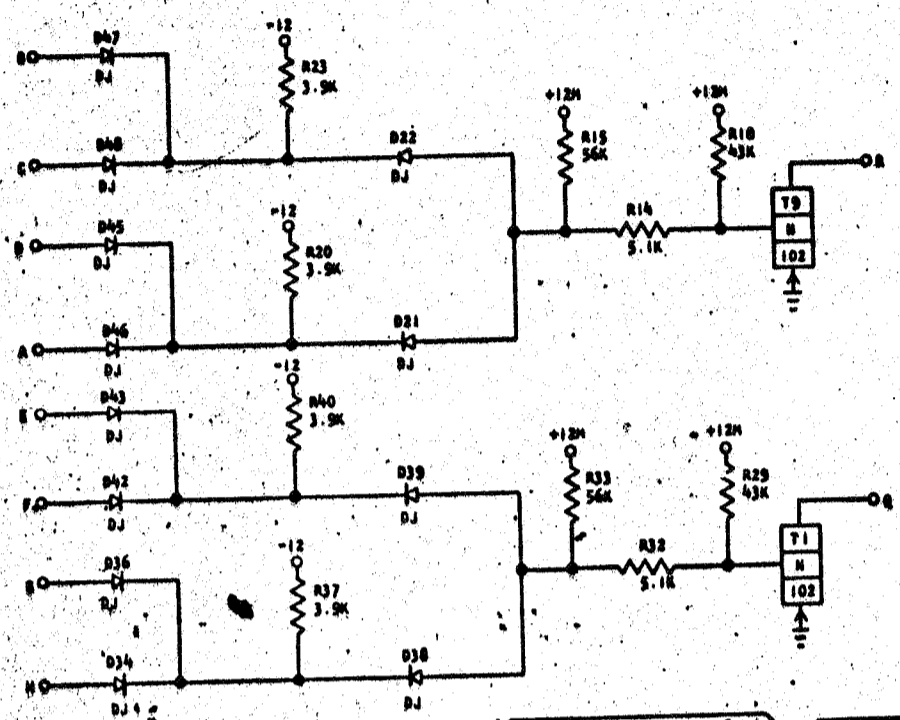
REFERENCE DRAWING

SEE PRODUCTION DRAWING 370358

729927



SDTOL DOUBLE LEVEL LOGIC BLOCK #2A LOW SPEED, WO LOADS



SEQUENCE OF OPERATION

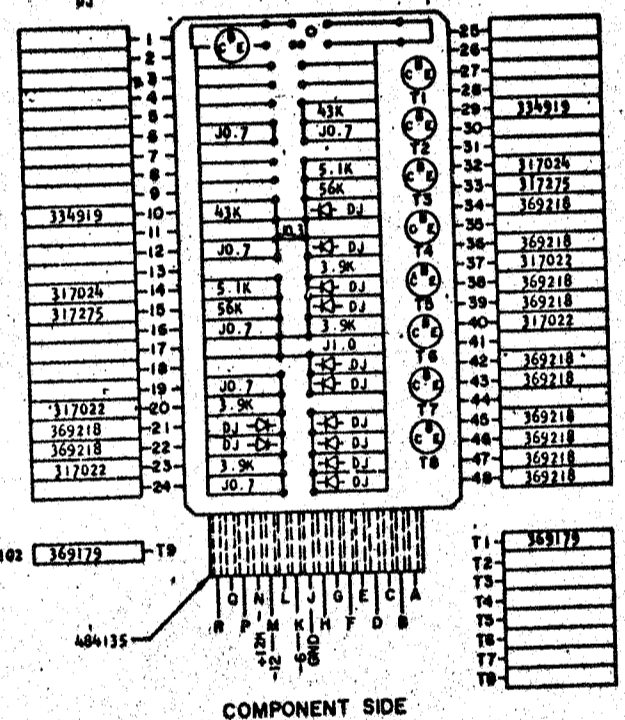
1. PINS D AND C MUST BE DOWN TO HAVE A DOWN LEVEL AT R22
2. PINS D AND A MUST BE DOWN TO HAVE A DOWN LEVEL AT D31
3. EITHER LEVEL DOWN AT D21 OR D22 WILL CAUSE THE TRANSISTOR TO TURN ON, THE OUTPUT WILL BE UP
4. EITHER D OR C UP WILL CAUSE AN UP LEVEL AT R22
5. EITHER D OR A WILL CAUSE AN UP LEVEL AT D31
6. BOTH LEVELS AT D21 AND D22 MUST BE UP TO TURN THE TRANSISTOR OFF, THE OUTPUT WILL BE DOWN
7. T1 AND T9 MUST BE COLLECTOR LOADED

PINS	SIGNAL NAME	WAVE SHAPE	LEVELS	
			MIN	MAX
D, C D, A	Y INPUT	[Square Wave]	UP DOWN	-0.65 -5.81
R	Y OUTPUTS	[Square Wave]	UP DOWN	-0.1 -8.8
E, F E, H	Y INPUTS	[Square Wave]	UP DOWN	-0.65 -5.81
Q	Y OUTPUTS	[Square Wave]	UP DOWN	-0.1 -8.8

DELAY - NSEC

	MIN.	MAX
TURN ON	70	240
TURN OFF	110	515

NOTE: MAXIMUM DELAY MAY INCREASE FOR A 6.2K COLLECTOR RESISTOR.



COMPONENT SIDE

CIRCUIT AND PACKAGING STANDARD	
APPROVAL	DATE
ABC	4-2-62

INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR-SDTOL-DOUBLE	2-21-62	115599					729927
LEVEL LB #2A LOW SPEED, WO LOADS	1-3-63	EC116034					
DESIGN							
DETAIL	3-1-62	SCALE NONE					
CHECK	3-1-62	DRAW LIG					
APPROV		CHECK					

729927