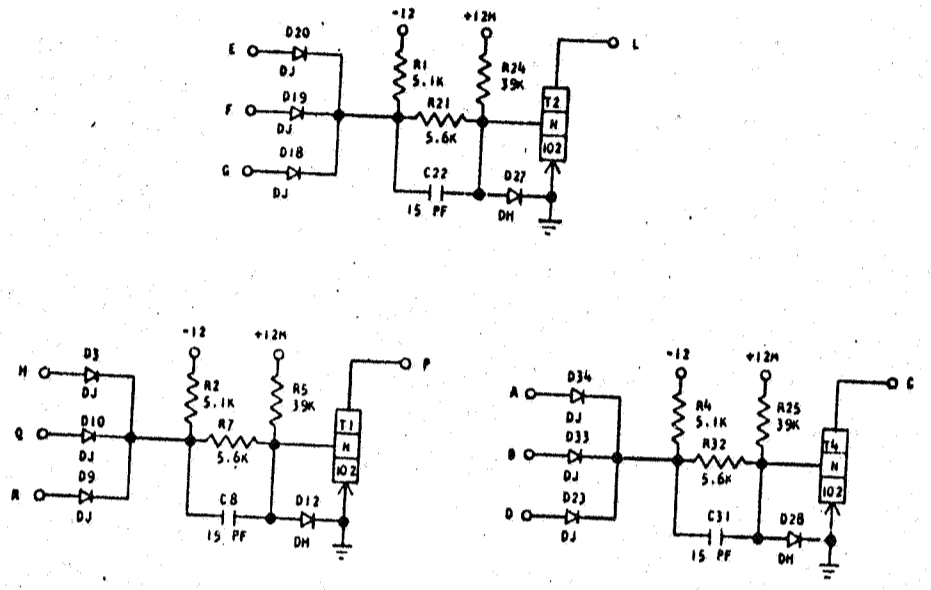
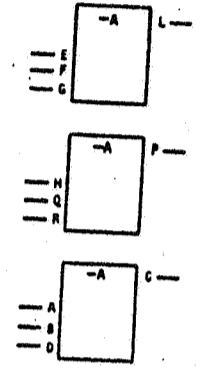


729908
STANDARD CODE

CARD CODE
DEJ - 729908

REDRAWN
REFERENCE DRAWING
SEE PRODUCTION DRAWING 370219

SDTDL THREE 3-WAY N AND LOGIC BLOCKS WITHOUT LOADS



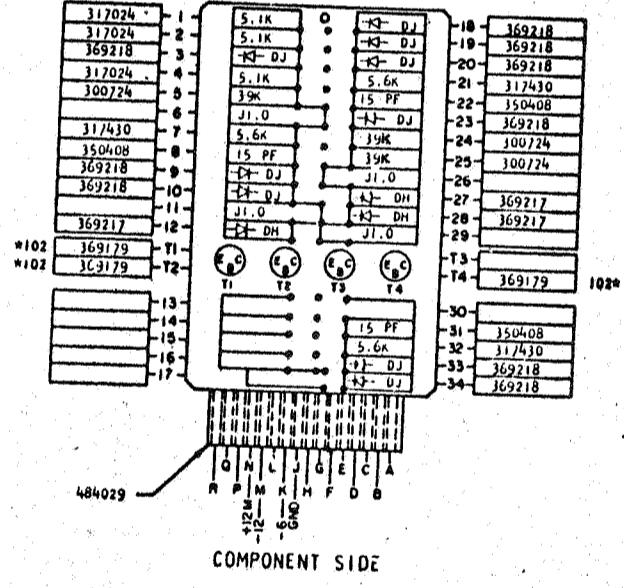
- SEQUENCE OF OPERATION**
1. ALL INPUTS DOWN TRANSISTOR ON OUTPUT UP
 2. ANY INPUT UP TRANSISTOR OFF OUTPUT DOWN
 3. COLLECTORS MUST BE LOADED
 4. LOGIC BLOCKS MAY HAVE SYMBOLS OTHER THAN SHOWN.

| PINS | SIGNAL NAME | WAVE SHAPE | LEVELS | |
|---------|-------------|------------|--------|--------------|
| | | | MIN | MAX |
| E, H, A | Y | INPUT | UP | -0.65 - -1 |
| F, Q, B | Y | INPUT | DOWN | -5.81 - -8.8 |
| G, R, D | Y | INPUT | UP | -0.65 - -1 |
| L, P, C | Y | OUTPUT | UP | -0.65 - -1 |
| | | | DOWN | -5.81 - -8.8 |

DELAY: SDTDL - HIGH SPEED
LOGIC BLOCK WITH 560 OHM COLLECTOR RESISTOR

| | | |
|-----------------|--------|---------|
| TURN ON (NSEC) | MIN. 5 | MAX. 30 |
| TURN OFF (NSEC) | 10 | 80 |

*THIS DELAY CAN INCREASE TO 75 NSEC WHEN THE DRIVING BLOCK HAS 6.2K COLLECTOR RESISTOR RETURNED TO -12V.
*THIS DELAY CAN INCREASE TO 120 NSEC WHEN THE DRIVING BLOCK OR THE BLOCK THAT DRIVES THE DRIVING BLOCK HAS 6.2K COLLECTOR RESISTOR RETURNED TO -12V.



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

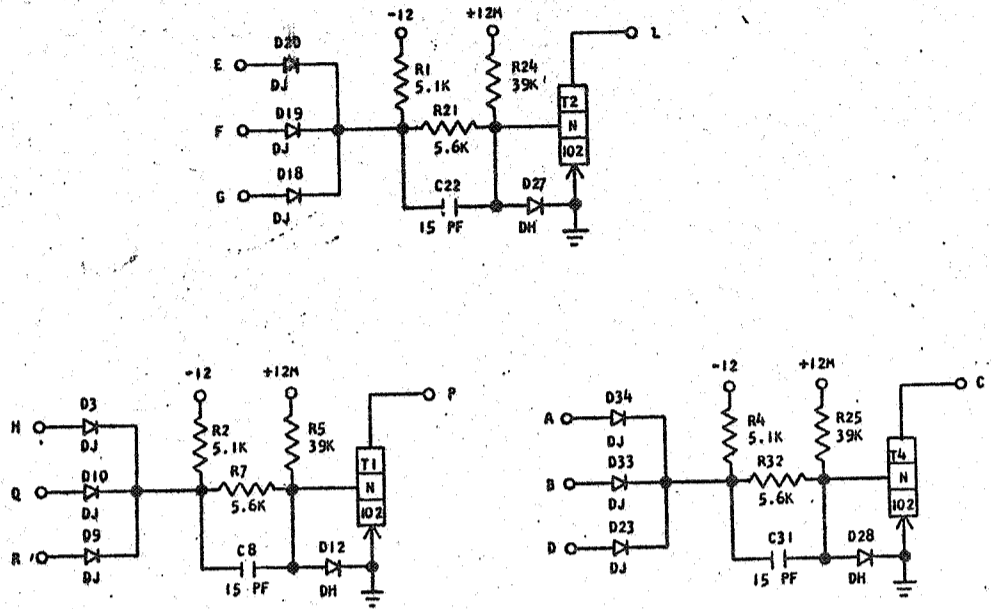
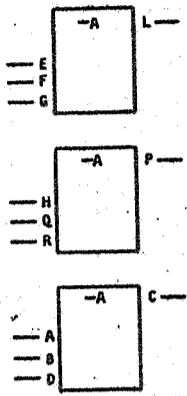
| INTERNATIONAL BUSINESS MACHINES CORP. | | DATE | CHANGE NO. | APPROVAL | DATE | CHANGE NO. | APPROVAL | DEVELOPMENT NO. |
|---------------------------------------|----------------------------------|----------|------------|----------|------|------------|----------|-----------------|
| NAME | CARD ASM TSTR-SDTDL THREE | 6-27-62 | 115599 | | | | | |
| DESIGN | 3-WAY N AND LOG BCKS WITHOUT LDS | 12-22-62 | EC114183D | | | | | |
| DESIGN | MODS | | | | | | | |
| DESIGN | NUM | | | | | | | |
| DESIGN | LIG | | | | | | | |
| DESIGN | DATE | | | | | | | |
| DESIGN | DATE | | | | | | | |
| DESIGN | DATE | | | | | | | |

C

729908

REFERENCE DRAWING
SEE PRODUCTION DRAWING 370219

SDTDL THREE 3-WAY N AND LOGIC BLOCKS WITHOUT LOADS



SEQUENCE OF OPERATION

1. ALL INPUTS DOWN TRANSISTOR ON OUTPUT UP
2. ANY INPUT UP TRANSISTOR OFF OUTPUT DOWN
3. COLLECTORS MUST BE LOADED
4. LOGIC BLOCKS MAY HAVE SYMBOLS OTHER THAN SHOWN.

| PINS | SIGNAL NAME | WAVE SHAPE | LEVELS | |
|---------|-------------|---------------------------|--------|------------|
| | | | MIN | MAX |
| E, H, A | Y INPUT | [Waveform: High then Low] | UP | -0.65 -0.1 |
| F, Q, B | Y INPUT | [Waveform: High then Low] | DOWN | -5.81 -8.8 |
| G, R, D | Y INPUT | [Waveform: High then Low] | UP | -0.65 -0.1 |
| L, P, C | Y OUTPUT | [Waveform: High then Low] | DOWN | -5.81 -8.8 |
| | | | UP | -0.65 -0.1 |
| | | | DOWN | -5.81 -8.8 |

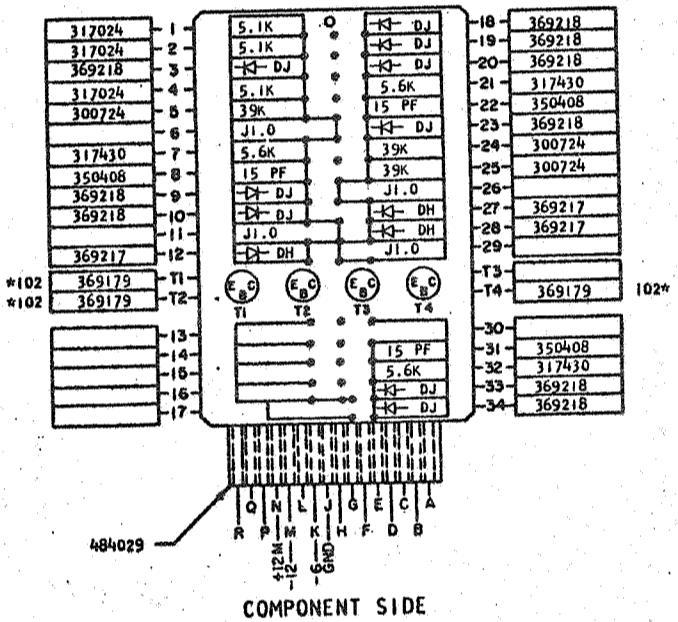
DELAY: SDTDL - HIGH SPEED

LOGIC BLOCK WITH 560 OHM COLLECTOR RESISTOR

| | MIN. | MAX. |
|-----------------|------|------|
| TURN ON (NSEC) | 5 | 30* |
| TURN OFF (NSEC) | 10 | 80** |

*THIS DELAY CAN INCREASE TO 75 NSEC WHEN THE DRIVING BLOCK HAS 6.2K COLLECTOR RESISTOR RETURNED TO -12V.

**THIS DELAY CAN INCREASE TO 120 NSEC WHEN THE DRIVING BLOCK OR THE BLOCK THAT DRIVES THE DRIVING BLOCK HAS 6.2K COLLECTOR RESISTOR RETURNED TO -12V.



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-SDTDL THREE | 4-7-62 | 115599 | | | | | |
| DESIGN | 3-WAY N AND LOG BCKS WITHOUT LOS | | | | | | | |
| DETAIL | RQ 3-1-62 SCALE NONE | | | | | | | |
| CHECK | WH 3-1-62 DRAW LIG 3-1-7-62 | | | | | | | |
| APPROV | CHECK | | | | | | | |

729908