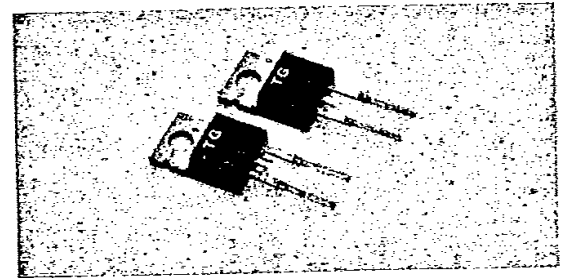




8 Amp Very Fast Recovery Rectifier

January 1984

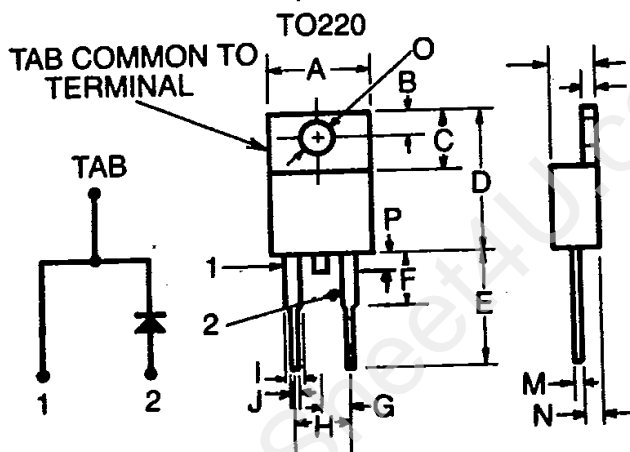
- 100 ns Recovery
- High Voltage
- High Junction Temperature
- Glass Passivated



| MAXIMUM RATINGS (At $T_A = 25^\circ\text{C}$ unless otherwise noted) | SYMBOL | TG84 | TG86 | TG88 | UNITS |
|---|-------------|-------------|------|------|------------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | 400 | 600 | 800 | V |
| Forward Current (Average) @ $T_C = 75^\circ\text{C}$ (Fig. 1) | $I_{F(AV)}$ | 8 | | | A |
| Peak Forward Surge Current, 1/2 Cycle, 60 Hz, per diode | I_{FSM} | 100 | | | A |
| Storage Temperature | T_{STG} | -55 to +150 | | | $^\circ\text{C}$ |
| Junction Operating Temperature | T_J | -55 to +150 | | | $^\circ\text{C}$ |

| ELECTRICAL CHARACTERISTICS * (At $T_A = 25^\circ\text{C}$ unless otherwise noted) | SYMBOL | | UNITS |
|---|----------------|----------|---------------------------|
| Maximum Instantaneous (Fig. 2) $T_J = 25^\circ\text{C}$ Reverse Current at Rated V_{RRM} $T_J = 100^\circ\text{C}$ | I_R | 5 100 | μA |
| Maximum Instantaneous Forward Voltage @ 8 Amp (Fig. 3) | V_F | 1.80 | V |
| Reverse Recovery Time $I_F = 0.5\text{A}, I_R = 1\text{A}, I_{REC} = 0.25\text{A}$ | t_{rr} | 100 | nsec. |
| Typical Junction capacitance, $V_R = 10\text{V}$ (Fig. 4) | C_V | 40 | pF |
| Thermal Resistance, Junction-To-Case | $R\theta_{jc}$ | 3.0 | $^\circ\text{C}/\text{W}$ |

* V_{RRM} represents the minimum junction breakdown voltage. Lead spacing and printed wiring conductor clearances must be evaluated based on ambient conditions.



| DIM (2) | INCHES | MILLIMETERS |
|---------|-----------|-------------|
| A | 0.415 Max | 10.54 Max |
| B | .108 | 2.74 |
| C | .248 | 6.3 |
| D | 0.605 Max | 15.37 Max |
| E | 0.552 | 14.02 |
| F | 0.240 Max | 6.1 Max |
| G | 0.100 | 2.54 |
| H | 0.200 | 5.08 |
| I | 0.050 | 1.27 |
| J | 0.032 | 0.81 |
| K | .190 Max | 4.83 Max |
| L | 0.050 | 1.27 |
| M | 0.022 | 0.56 |
| N | 0.105 | 2.67 |
| O | 0.143 | 3.63 |
| P | 0.100 Max | 2.54 Max |

(2) Dimensions are typical values unless otherwise specified.

FIG. 1

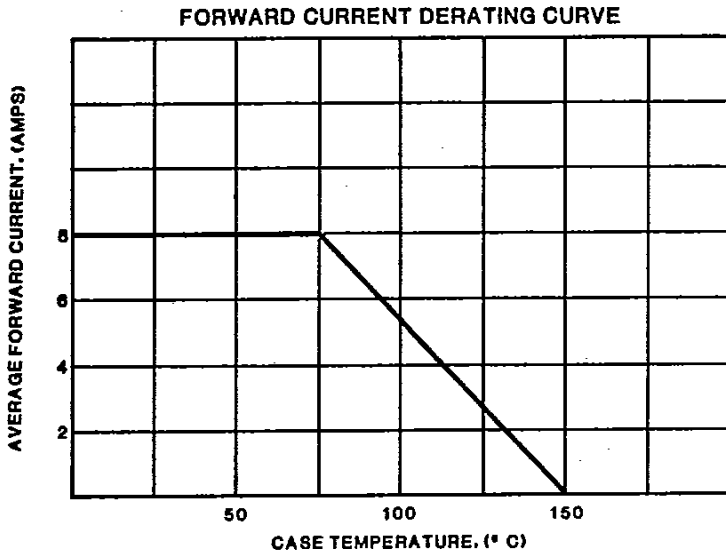


FIG. 3

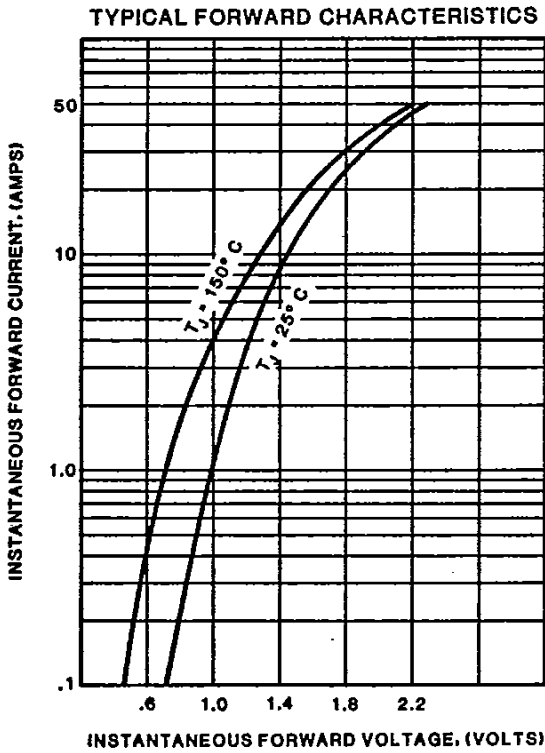


FIG. 2

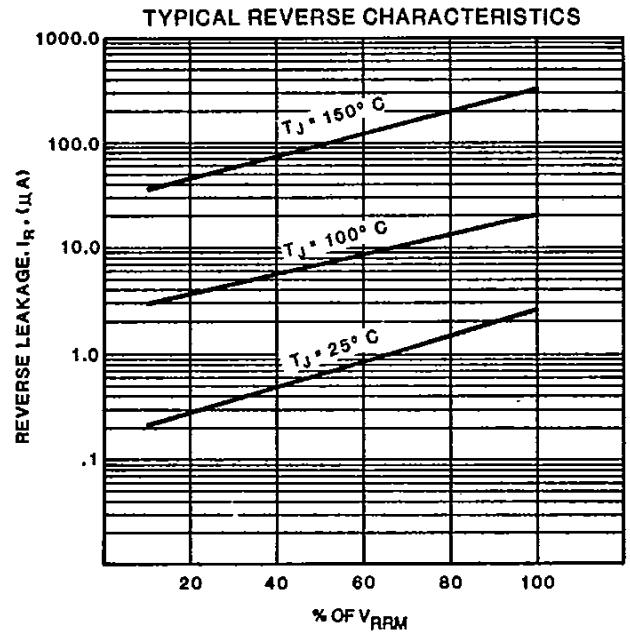
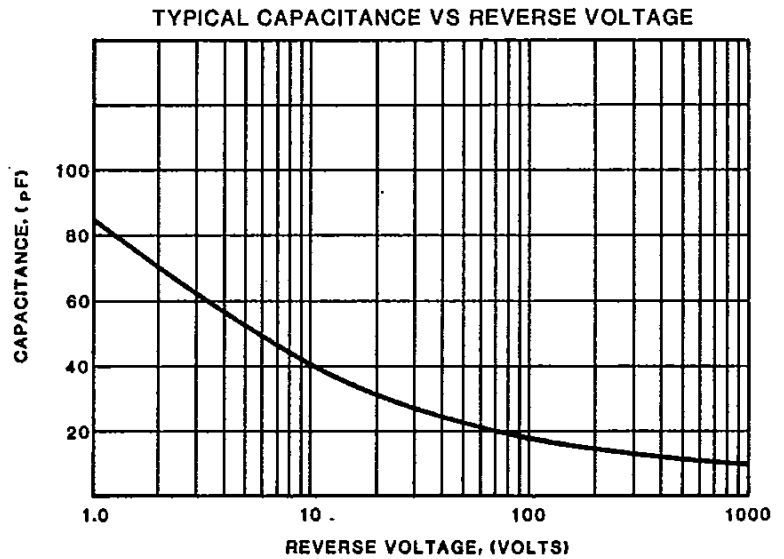
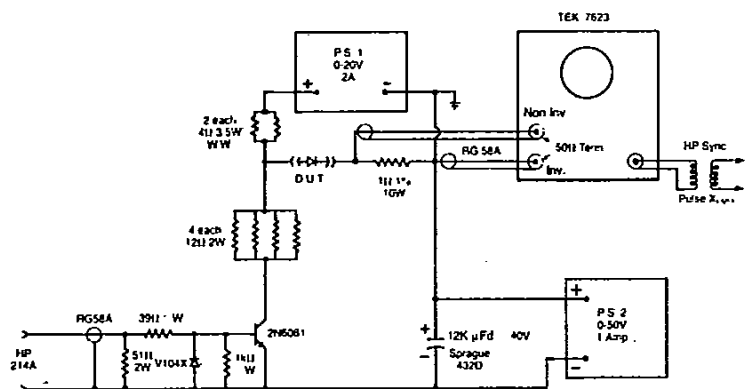


FIG. 4



TYPICAL RECOVERY TEST CIRCUIT



- NOTE:
1. H. P. 214A and scope must be transformer isolated from test circuit
 2. Signal coax to scope equal length
 3. Adjust P.S. 1 to desired I Forward
Adjust P.S. 2 to desired I Reverse
 4. H. P. 214A output
A. P.W. = .5 µ Sec
B. Pulse amplitude + 10V to + 15V as required to saturate 2N6081

RECOVERY WAVE FORM

