

SILICON CONTROLLED RECTIFIER (SCR)

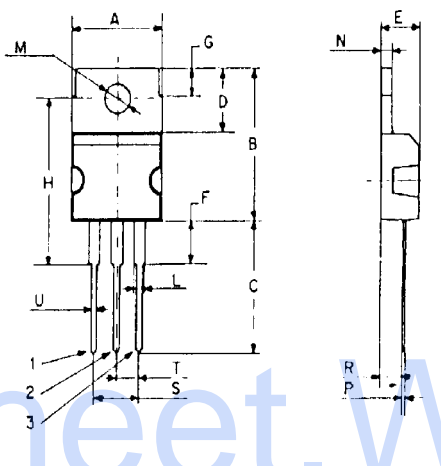
DESCRIPTION:

The **2N6508** is a Medium Current SCR for General Purpose Power Control Applications.

MAXIMUM RATINGS

| | |
|---------------|--|
| I_T | 25 A (RMS) @ $T_C = 85^\circ\text{C}$ 16 A (AVG) @ $T_C = 25^\circ\text{C}$ |
| V_{CE} | 600 V |
| P_{DISS} | $P_{GM} = 20\text{ W}$ $P_{G(AVG)} = 0.5\text{ W}$ |
| T_J | -40°C to $+125^\circ\text{C}$ |
| T_{STG} | -40°C to $+150^\circ\text{C}$ |
| θ_{JC} | 1.50°C/W |

PACKAGE STYLE TO-220AB



| | DIMENSIONS | | | |
|---|------------|------|------------|-------|
| | mm | | inches | |
| | min | max | min | max |
| A | 10 | 10.4 | 0.393 | 0.409 |
| B | 15.2 | 15.9 | 0.598 | 0.626 |
| C | 12.7 | 13.7 | 0.500 | 0.539 |
| D | 6.2 | 6.6 | 0.244 | 0.260 |
| E | 4.4 | 4.6 | 0.173 | 0.181 |
| F | 3.5 | 5.5 | 0.137 | 0.216 |
| G | 2.65 | 2.95 | 0.104 | 0.116 |
| H | 17.6 typ. | | 0.692 typ. | |
| L | 1.14 | 1.7 | 0.044 | 0.067 |
| M | 3.75 | 3.85 | 0.147 | 0.151 |
| N | 1.23 | 1.32 | 0.048 | 0.051 |
| P | 0.41 | 0.64 | 0.016 | 0.025 |
| R | 2.4 | 2.72 | 0.094 | 0.107 |
| S | 4.95 | 5.15 | 0.194 | 0.203 |
| T | 2.4 | 2.7 | 0.094 | 0.106 |
| U | 0.61 | 0.94 | 0.024 | 0.037 |

1: Cathode 2: Anode 3: Gate Tab: Anode

CHARACTERISTICS $T_C = 25^\circ\text{C}$

| SYMBOL | TEST CONDITIONS | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|-------------------|--|---------|----------|------------|--------------------------------|
| I_{DRM}/I_{RRM} | $V_{DRM}/V_{RRM} = 600\text{ V}$ $T_J = 25^\circ\text{C}$ | | | 10 | μA |
| I_{DRM}/I_{RRM} | $V_{DRM}/V_{RRM} = 600\text{ V}$ $T_J = 125^\circ\text{C}$ | | | 2.0 | mA |
| I_{GT} | $V_D = 12\text{ V}$ $R_L = 100\ \Omega$ $T_C = 25^\circ\text{C}$ $T_C = -40^\circ\text{C}$ | | | 40 75 | mA mA |
| V_{GT} | $V_D = 12\text{ V}$ $R_L = 100\ \Omega$ $T_C = -40^\circ\text{C}$ | | | 1.50 | V |
| V_{GD} | $V_D = 600\text{ V}$ $R_L = 100\ \Omega$ $T_J = 125^\circ\text{C}$ | 0.2 | | | V |
| I_H | $V_D = 12\text{ V}$ $T_C = -40^\circ\text{C}$ | | | 40 | mA |
| V_{TM} | $I_{TM} = 50\text{ A (PEAK)}$ | | | 1.80 | V |
| t_{gt} | $I_{TM} = 25\text{ A}$ $I_{GT} = 50\text{ mA}$ | | | 2.0 | μS |
| t_q | $I_{TM} = 25\text{ A}$ $I_R = 25\text{ A}$ $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$ | | 15 35 | | μS μS |
| dv/dt | $V_{DRM} = 600\text{ V}$ GATE OPEN | | 50 | | $\text{V}/\mu\text{S}$ |
| I_{TSM} | PEAK NON-REPETITIVE SURGE CURRENT $\frac{1}{2}$ CYCLE 1.5 mS | | | 300 350 | A A |



ERROR! REFERENCE SOURCE NOT FOUND.

ADVANCED SEMICONDUCTOR, INC.

7525 ETHEL AVENUE • NORTH HOLLYWOOD, CA 91605 • (818) 982-1202 • TELEX: 18-2651 • FAX (818) 765-3004