

9097250 TOSHIBA (DISCRETE/OPTO)

67C 09296

D T-03-09

Silicon Epitaxial Planar Type

Diode

**1N4608**

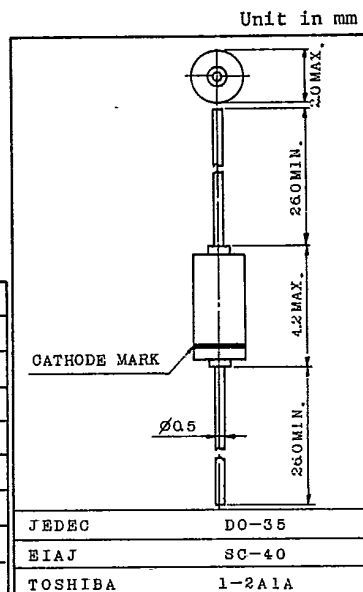
TENTATIVE

COMMUNICATION AND INDUSTRIAL APPLICATIONS.

HIGH VOLTAGE, ULTRA HIGH SPEED SWITCHING APPLICATIONS.

MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ )

| CHARACTERISTIC                   | SYMBOL    | RATING    | UNIT             |
|----------------------------------|-----------|-----------|------------------|
| Maximum (Peak) Reverse Voltage   | $V_{RM}$  | 85        | V                |
| Reverse Voltage                  | $V_R$     | 70        | V                |
| Maximum (Peak) Forward Current   | $I_{FM}$  | 600       | mA               |
| Average Forward Current          | $I_O$     | 200       | mA               |
| Surge Current (1 $\mu\text{s}$ ) | $I_{FSM}$ | 4         | A                |
| Power Dissipation                | P         | 500       | mW               |
| Junction Temperature             | $T_j$     | 200       | $^\circ\text{C}$ |
| Storage Temperature Range        | $T_{stg}$ | -65 ~ 200 | $^\circ\text{C}$ |



Weight : 0.14g

ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ )

| CHARACTERISTIC        | SYMBOL      | TEST CONDITION                             | MIN. | TYP. | MAX. | UNIT          |
|-----------------------|-------------|--------------------------------------------|------|------|------|---------------|
| Breakdown Voltage     | $V_{BR}$    | $I_R=100\mu\text{A}$                       | 85   | -    | -    | V             |
| Forward Voltage       | $V_F(1)$    | $I_F=100\mu\text{A}$                       | 0.39 | 0.44 | 0.49 | V             |
|                       | $V_F(2)$    | $I_F=1\text{mA}$                           | 0.50 | 0.55 | 0.60 | V             |
|                       | $V_F(3)$    | $I_F=10\text{mA}$                          | 0.61 | 0.66 | 0.71 | V             |
|                       | $V_F(4)$    | $I_F=100\text{mA}$                         | 0.74 | 0.80 | 0.85 | V             |
|                       | $V_F(5)$    | $I_F=250\text{mA}$                         | 0.81 | 0.87 | 0.93 | V             |
|                       | $V_F(6)$    | $I_F=350\text{mA}$                         | 0.84 | 0.90 | 0.96 | V             |
|                       | $V_F(7)$    | $I_F=450\text{mA}$                         | -    | -    | 1.00 | V             |
|                       | $V_F(8)$    | $I_F=500\text{mA}$                         | -    | -    | 1.10 | V             |
| Reverse Current       | $I_R(1)$    | $V_R=50\text{V}$                           | -    | -    | 100  | nA            |
|                       | $I_R(2)$    | $V_R=50\text{V}, T_a=100^\circ\text{C}$    | -    | -    | 25   | $\mu\text{A}$ |
|                       | $I_R(3)$    | $V_R=70\text{V}$                           | -    | -    | 250  | nA            |
| Total Capacitance     | $C_T$       | $V_R=0, f=1\text{MHz}$                     | -    | -    | 4    | pF            |
| Reverse Recovery Time | $t_{rr}(1)$ | $I_F=I_R=10\text{mA}, I_{rr}=1\text{mA}$   | -    | -    | 10   | ns            |
|                       | $t_{rr}(2)$ | $I_F=I_R=500\text{mA}, I_{rr}=50\text{mA}$ | -    | -    | 15   | ns            |

TOSHIBA CORPORATION