# 1S2092

Silicon Epitaxial Planar Type

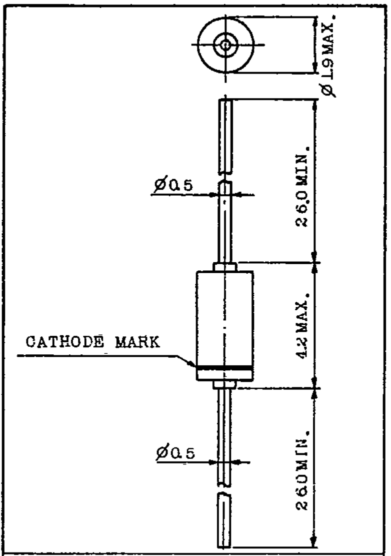
Diode

GENERAL PURPOSE DETECTOR AND RECTIFIER APPLICATIONS

FEATURES:

- High Maximum (Peak) Reverse Voltage : $V_{RM}$=125V
- Small Total Capacitance : $C_T$=0.7pF (Typ.)
- Fast Reverse Recovery Time : $t_{rr}$=2ns (Typ.)

Unit in mm



| | |
|---|---|
| JEDEC | DO-35 |
| EIAJ | SC-40 |
| TOSHIBA | 1-2A1A |

Weight : 0.14g

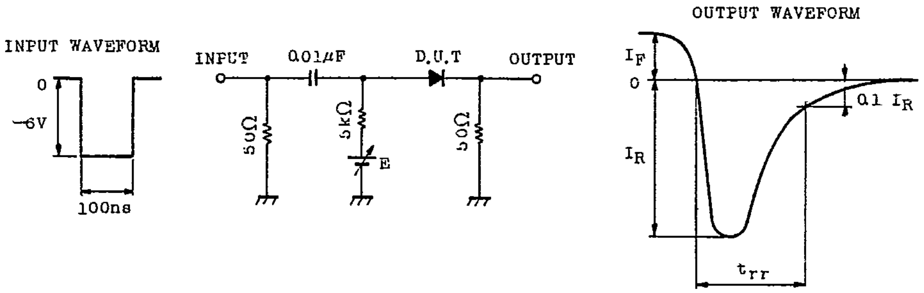
MAXIMUM RATINGS (Ta=25°C)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|---|---|---|---|
| Maximum(Peak) Reverse Voltage | $V_{RM}$ | 125 | V |
| Reverse Voltage | $V_R$ | 100 | V |
| Maximum(Peak) Forward Current | $I_{FM}$ | 90 | mA |
| Average Forward Current | $I_O$ | 30 | mA |
| Surge Current (1 sec) | $I_{FSM}$ | 300 | mA |
| Junction Temperature | $T_j$ | 150 | °C |
| Storage Temperature Range | $T_{stg}$ | -55~150 | °C |

ELECTRICAL CHARACTERISTICS (Ta=25°C)

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|---|---|---|---|---|---|---|
| Forward Current | $I_F$ | $V_F$=1.0V | 4.0 | - | - | mA |
| Reverse Current | $I_R$ | $V_R$=100V | - | - | 1.2 | μA |
| Total Capacitance | $C_T$ | $V_R$=0, f=1MHz | - | 0.7 | 3.0 | pF |
| Reverse Recovery Time | $t_{rr}$ | $I_F$=10mA (Fig.) | - | 2 | 100 | ns |

Fig. : $t_{rr}$ TEST CIRCUIT



**TOSHIBA CORPORATION**

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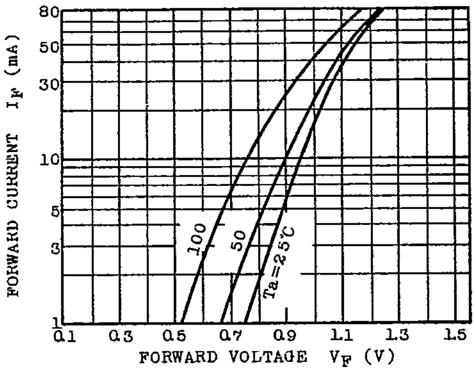
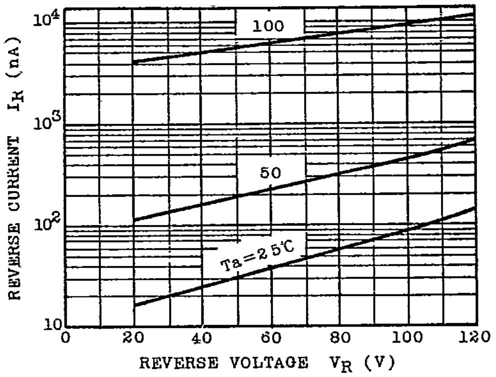
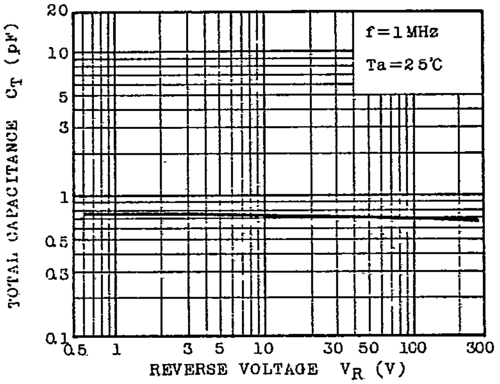
$I_F - V_F$



$I_R - V_R$



$C_T - V_R$



P − Ta