

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## DESCRIPTION

- Epitaxial planar Silicon diode

## FEATURES

- High speed. ( $T_{RR}=1.5\text{ns}$  Typ.)
- Suitable for high packing density layout
- High reliability.

## APPLICATIONS

- Ultra high speed switching
- For portable equipment:(i.e. Mobile phone,MP3, MD,CD-ROM, DVD-ROM, Note book PC, etc.)

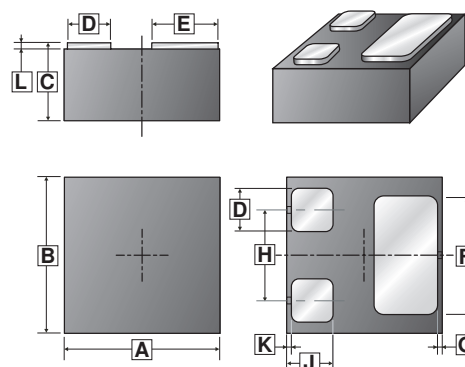
## MARKING

N

## PACKAGE INFORMATION

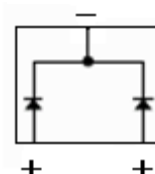
| Package   | MPQ | Leader Size |
|-----------|-----|-------------|
| WBFBP-03D | 5K  | 7 inch      |

### WBFBP-03D



| REF. | Millimeter |       | REF. | Millimeter |       |
|------|------------|-------|------|------------|-------|
|      | Min.       | Max.  |      | Min.       | Max.  |
| A    | 0.950      | 1.050 | G    | -          | 0.050 |
| B    | 0.950      | 1.050 | H    | 0.510      | 0.610 |
| C    | 0.010      | 0.070 | J    | 0.250      | 0.350 |
| D    | 0.210      | 0.310 | K    | -          | 0.050 |
| E    | 0.350 REF. |       | L    | 0.450      | 0.550 |
| F    | 0.680 REF. |       |      |            |       |

### TOP VIEW



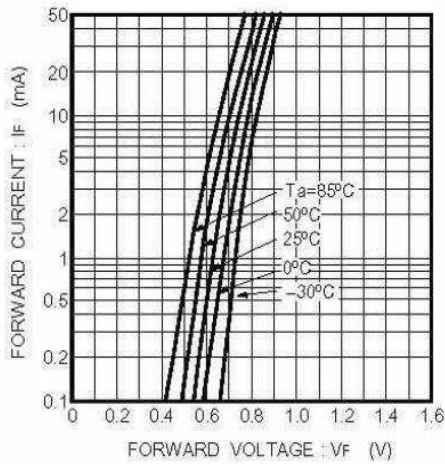
## ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ unless otherwise specified)

| Parameters                                 | Symbol         | Rating       | Unit             |
|--------------------------------------------|----------------|--------------|------------------|
| Peak Repetitive Reverse Voltage            | $V_{RM}$       | 80           | V                |
| DC Reverse Voltage                         | $V_R$          | 80           | V                |
| Forward Continuous Current                 | $I_{FM}$       | 300          | mA               |
| Average Rectified Output Current           | $I_O$          | 100          | mA               |
| Power Dissipation                          | $P_D$          | 100          | mW               |
| Operating Junction and Storage Temperature | $T_J, T_{STG}$ | 150, -65~150 | $^\circ\text{C}$ |

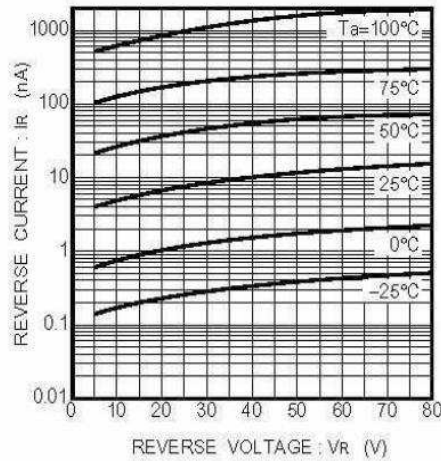
## ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ unless otherwise specified)

| Parameters                                              | Symbol     | Min. | Max. | Unit          | Test Conditions                 |
|---------------------------------------------------------|------------|------|------|---------------|---------------------------------|
| Reverse breakdown voltage                               | $V_{(BR)}$ | 80   | -    | V             | $I_R=100\mu\text{A}$            |
| Maximum DC Reverse Current at rated DC blocking voltage | $I_R$      | -    | 0.1  | $\mu\text{A}$ | $V_R=70\text{V}$                |
| Forward Voltage                                         | $V_F$      | -    | 1.2  | V             | $I_F=100\text{mA}$              |
| Diode Capacitance                                       | $C_D$      | -    | 3.5  | pF            | $V_R=6\text{V}, f=1\text{MHz}$  |
| Maximum Reverse Recovery Time                           | $T_{RR}$   | -    | 4    | nS            | $V_R=6\text{V}, I_F=5\text{mA}$ |

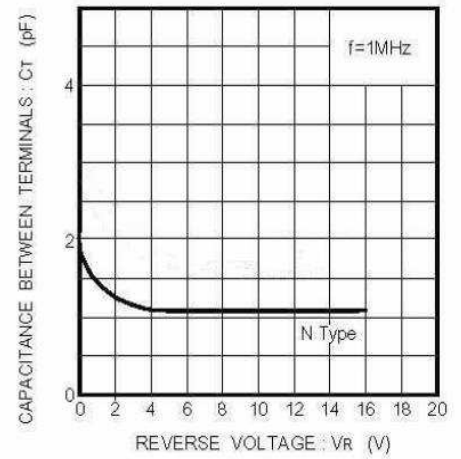
## CHARACTERISTIC CURVES



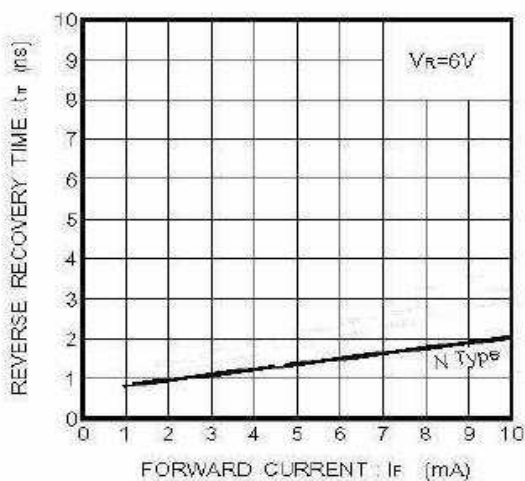
Forward characteristics



Reverse characteristics



Capacitance between terminals characteristics



Reverse recovery time

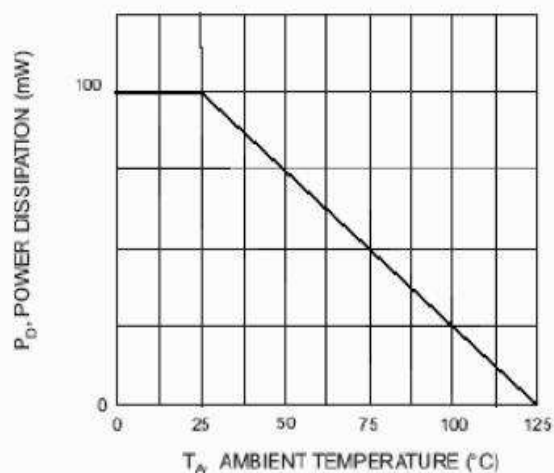
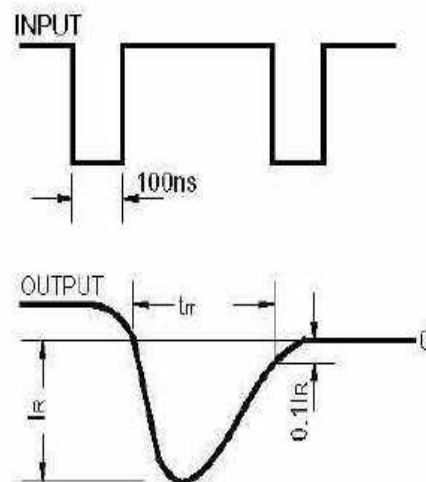
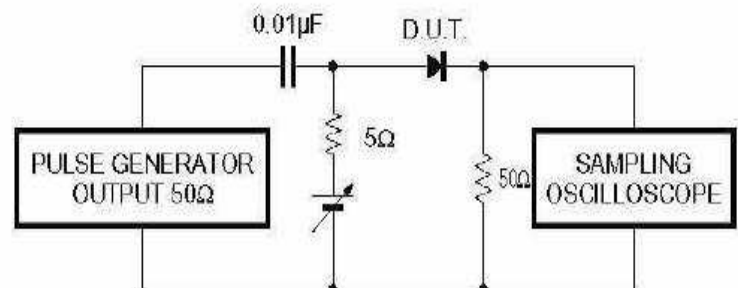


Fig. 1 Power Derating Curve



Reverse recovery time ( $t_r$ ) measurement circuit