

ULTRA HIGH SPEED SWITCHING APPLICATION.

#### FEATURES

- Low forward voltage.  $V_F = 0.9V(\text{Typ.})$
- Fast reverse recovery time.  $t_{rr} = 1.6ns(\text{Typ.})$
- Small total capacitance.  $C_T = 0.9pF(\text{Typ.})$

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

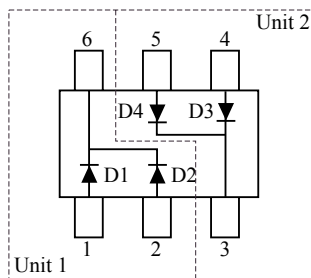
| CHARACTERISTIC                 | SYMBOL      | RATING    | UNIT             |
|--------------------------------|-------------|-----------|------------------|
| Maximum (Peak) Reverse Voltage | $V_{RM}$    | 85        | V                |
| Reverse Voltage                | $V_R$       | 80        | V                |
| Maximum (Peak) Forward Current | $I_{FM}^*$  | 300       | mA               |
| Average Forward Current        | $I_O^*$     | 100       | mA               |
| Surge Current (10ms)           | $I_{FSM}^*$ | 2         | A                |
| Power Dissipation              | $P_D^{**}$  | 900       | mW               |
| Junction Temperature           | $T_j$       | 150       | $^\circ\text{C}$ |
| Storage Temperature Range      | $T_{stg}$   | -55 ~ 150 | $^\circ\text{C}$ |

\* This is Maximum Ratings of single diode (D1 or D2 or D3 or D4).

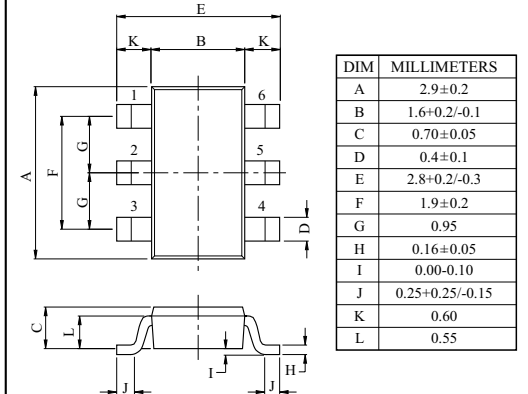
In the case of using Unit 1 and Unit 2 independently or simultaneously, the Maximum Ratings per diode is 75% of the single diode one.

\*\* Package mounted on a ceramic board ( $600\text{mm}^2 \times 0.8\text{mm}$ )

#### EQUIVALENT CIRCUIT (TOP VIEW)



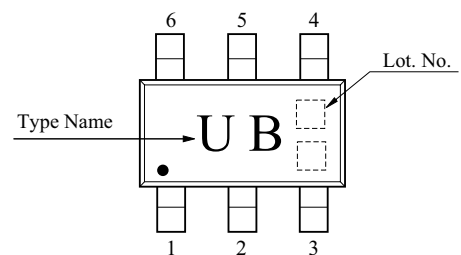
## TENTATIVE



1. D1 ANODE
2. D2 ANODE
3. D3/D4 CATHODE
4. D3 ANODE
5. D4 ANODE
6. D1/D2 CATHODE

TS6

#### Marking



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

| CHARACTERISTIC        | SYMBOL     | TEST CONDITION                     | MIN. | TYP. | MAX. | UNIT          |
|-----------------------|------------|------------------------------------|------|------|------|---------------|
| Forward Voltage       | $V_{F(1)}$ | $I_F = 1\text{mA}$                 | -    | 0.60 | -    | V             |
|                       | $V_{F(2)}$ | $I_F = 10\text{mA}$                | -    | 0.72 | -    |               |
|                       | $V_{F(3)}$ | $I_F = 100\text{mA}$               | -    | 0.90 | 1.20 |               |
| Reverse Current       | $I_R$      | $V_R = 80\text{V}$                 | -    | -    | 0.5  | $\mu\text{A}$ |
| Total Capacitance     | $C_T$      | $V_R = 0\text{V}, f = 1\text{MHz}$ | -    | 0.9  | 3.0  | pF            |
| Reverse Recovery Time | $t_{rr}$   | $I_F = 10\text{mA}$                | -    | 1.6  | 4.0  | ns            |

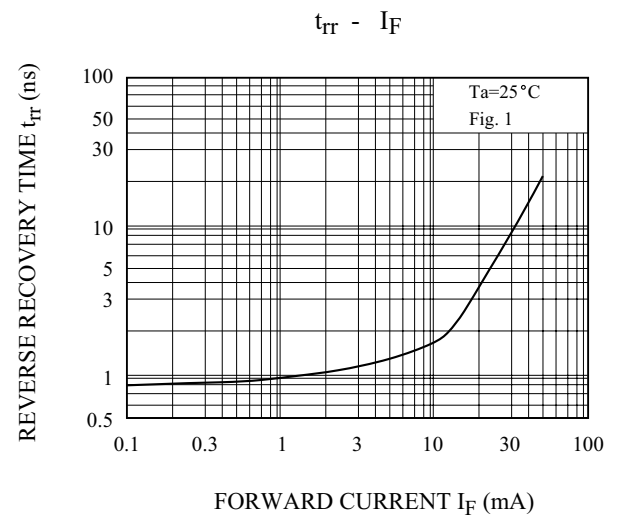
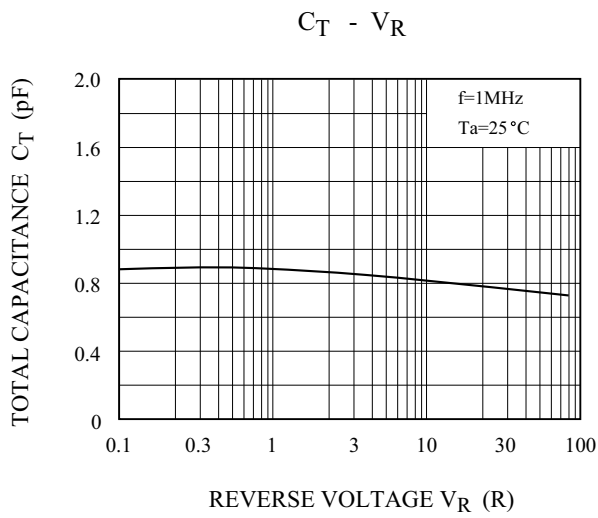
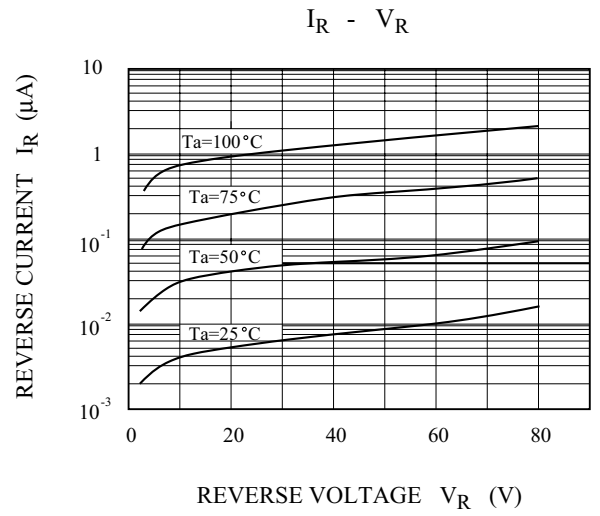
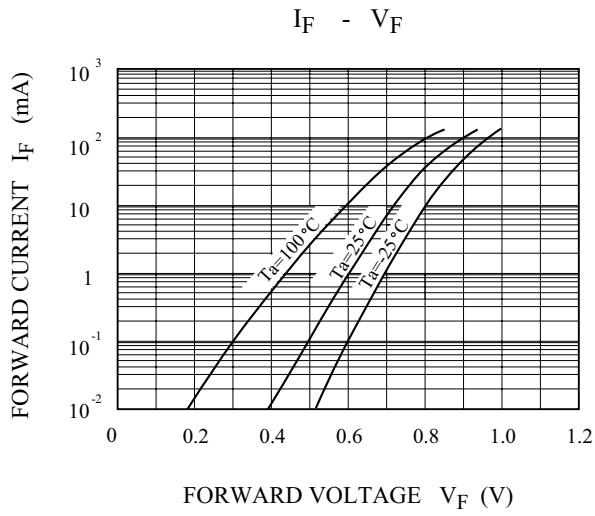


Fig. 1. REVERSE RECOVERY TIME ( $t_{rr}$ ) TEST CIRCUIT

