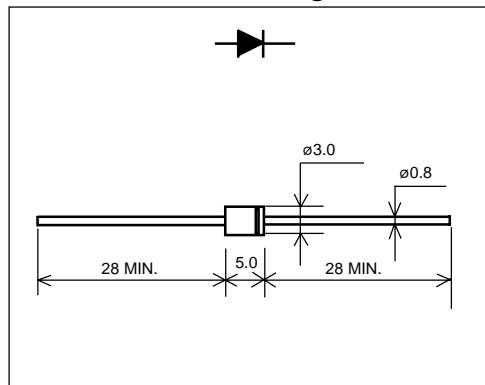


# ERB37 (1.0A)

( 800 to 1000V / 1.0A )

## FAST RECOVERY DIODE

### ■ Outline drawings, mm



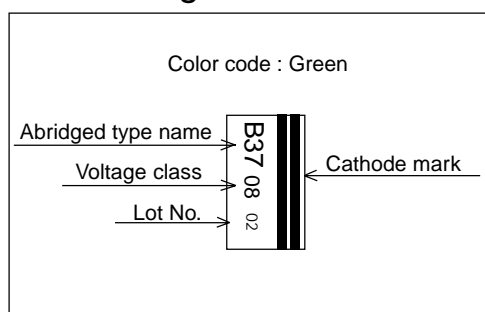
### ■ Features

- Super high speed switching
- Low  $V_F$  in turn on
- High reliability

### ■ Applications

- High speed switching

### ■ Marking



### ■ Maximum ratings and characteristics

- Absolute maximum ratings

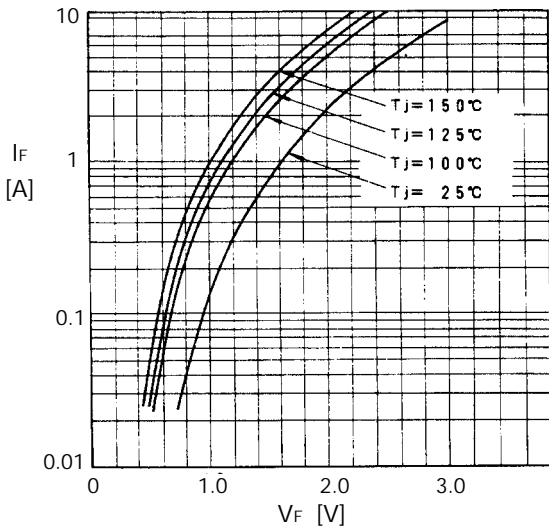
| Item                                | Symbol      | Conditions                                   | Rating      |      | Unit             |
|-------------------------------------|-------------|--|-------------|------|------------------|
|                                     |             |  | -08         | -10  |                  |
| Repetitive peak reverse voltage     | $V_{RRM}$   |  | 800         | 1000 | V                |
| Non-repetitive peak reverse voltage | $V_{RSM}$   |  | 800         | 1000 | V                |
| Average forward current             | $I_{F(AV)}$ | Resistive load ( $T_I = 125^\circ\text{C}$ ) | 1.0         |      | A                |
| Surge current                       | $I_{FSM}$   | Sine wave 10ms                               | 30          |      | A                |
| Operating junction temperature      | $T_j$       |  | -40 to +150 |      | $^\circ\text{C}$ |
| Storage temperature                 | $T_{stg}$   |  | -40 to +150 |      | $^\circ\text{C}$ |

- Electrical characteristics ( $T_a = 25^\circ\text{C}$  Unless otherwise specified)

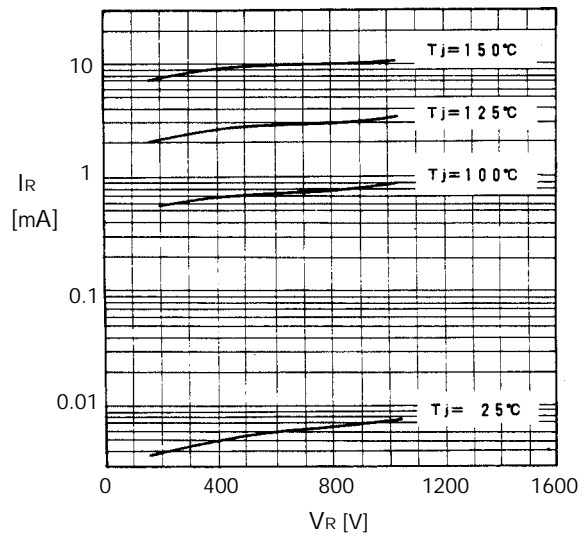
| Item                  | Symbol    | Conditions                             | Max. | Unit          |
|-----------------------|-----------|--|------|---------------|
| Forward voltage drop  | $V_{FM}$  | $I_{FM} = 1.0\text{A}$                 | 3.0  | V             |
| Reverse current       | $I_{RRM}$ | $V_R = V_{RRM}$                        | 10   | $\mu\text{A}$ |
| Reverse recovery time | $t_{rr}$  | $I_F = 0.1\text{A}, I_R = 0.1\text{A}$ | 250  | ns            |

■ Characteristics

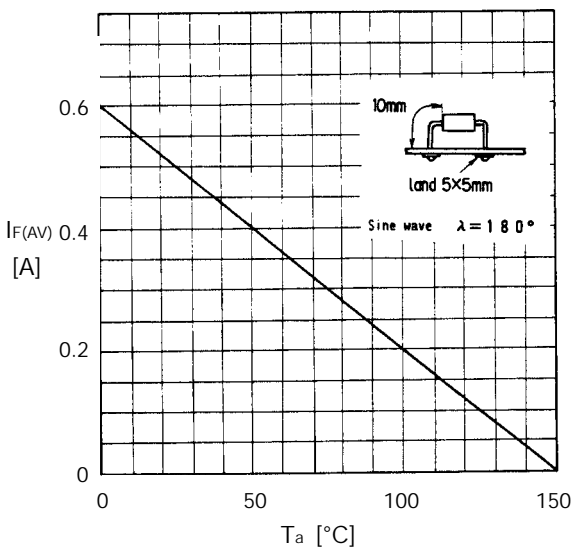
Forward characteristics



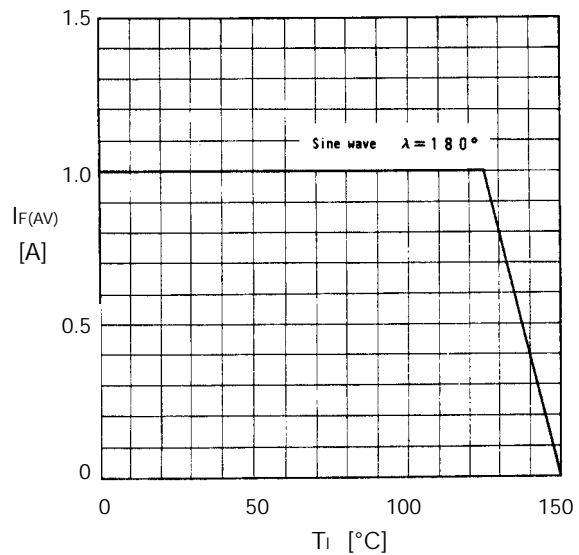
Reverse characteristics



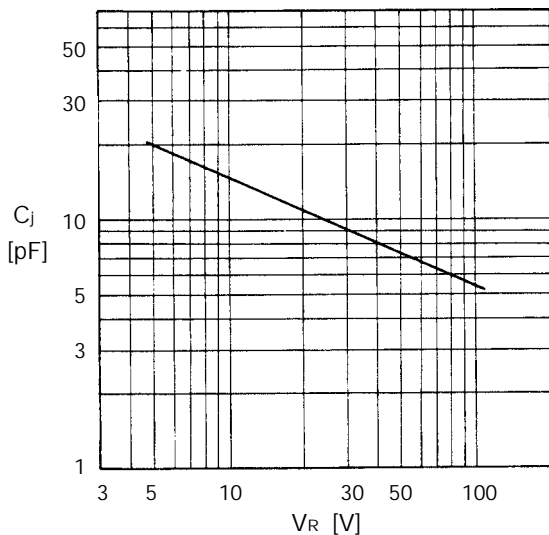
Current derating ( $I_{F(AV)}-T_a$ )



Current derating ( $I_{F(AV)}-T_l$ )



Junction capacitance characteristics



Surge capability

