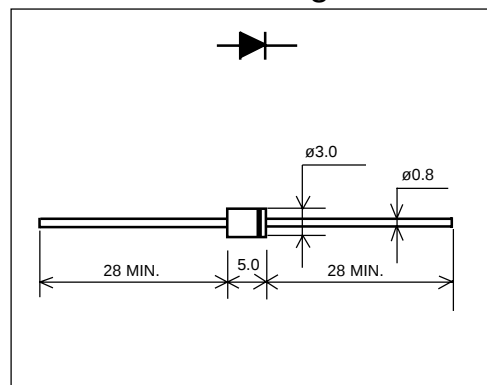


# ERB44 (1.0A)

( 200 to 1000V / 1.0A )

## FAST RECOVERY DIODE

### ■ Outline drawings, mm



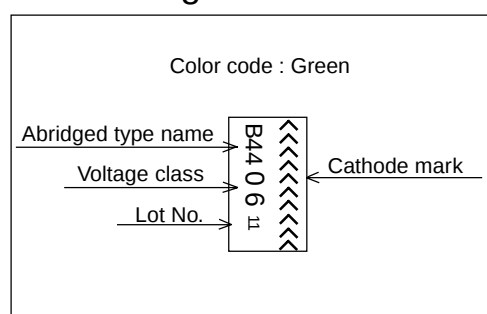
### ■ Features

- High voltage by mesa design
- High reliability

### ■ Applications

- High speed switching

### ■ Marking



### ■ Maximum ratings and characteristics

- Absolute maximum ratings

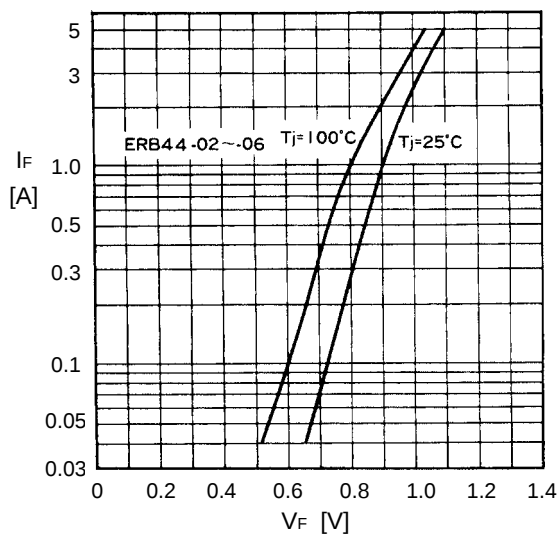
| Item                            | Symbol      | Conditions     | Rating                   |     |     |     |                          | Unit        |
|---------------------------------|-------------|----------------|--------------------------|-----|-----|-----|--------------------------|-------------|
|                                 |             |                | -02                      | -04 | -06 | -08 | -10                      |             |
| Repetitive peak reverse voltage | $V_{RRM}$   |                | 200                      | 400 | 600 | 800 | 1000                     | V           |
| Average forward current         | $I_{F(AV)}$ | Resistive load | 1.0( $T_a=40^{\circ}C$ ) |     |     |     | 1.0( $T_a=25^{\circ}C$ ) | A           |
| Surge current                   | $I_{FSM}$   | Sine wave 10ms | 30                       |     |     |     |                          | A           |
| Operating junction temperature  | $T_j$       |                | -40 to +140              |     |     |     |                          | $^{\circ}C$ |
| Storage temperature             | $T_{stg}$   |                | -40 to +140              |     |     |     |                          | $^{\circ}C$ |

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

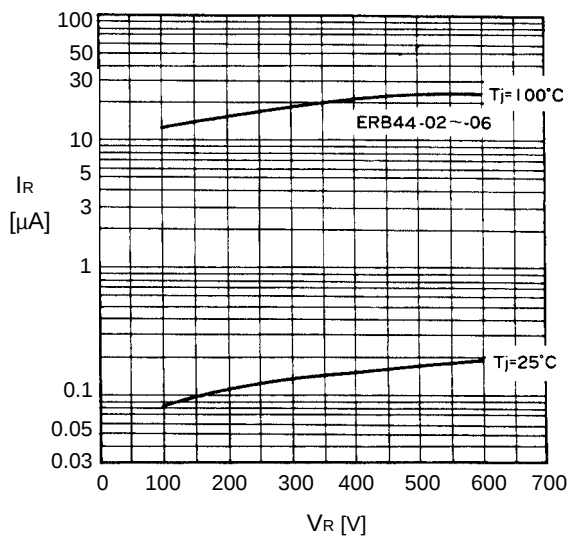
| Item                  | Symbol    | Conditions           | Max.       |     | Unit    |
|-----------------------|-----------|----------------------|------------|-----|---------|
|                       |           |                      | -02 to -08 | -10 |         |
| Forward voltage drop  | $V_{FM}$  | $I_{FM}=1.0A$        | 1.1        | 1.5 | V       |
| Reverse current       | $I_{RRM}$ | $V_R=V_{RRM}$        | 10         |     | $\mu A$ |
| Reverse recovery time | $t_{rr}$  | $I_F=0.1A, I_R=0.1A$ | 0.4        |     | $\mu s$ |

■ Characteristics

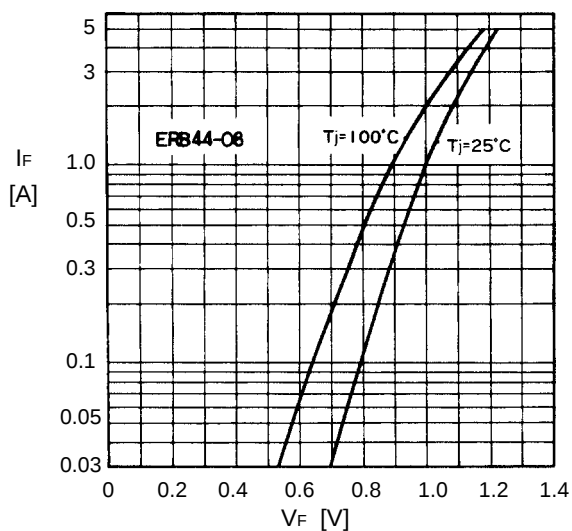
Forward characteristics



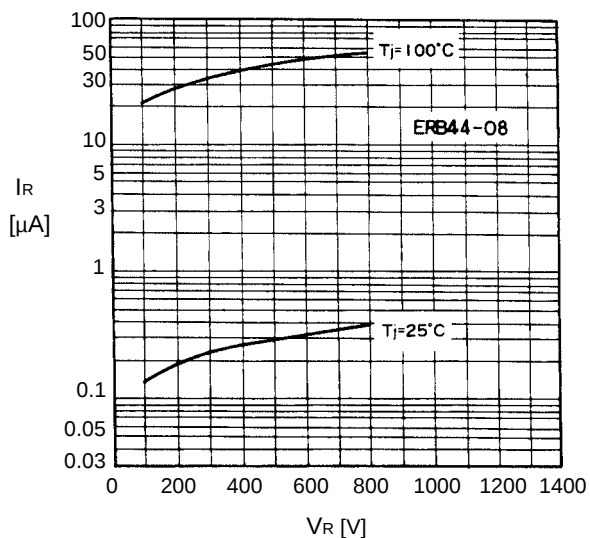
Reverse characteristics



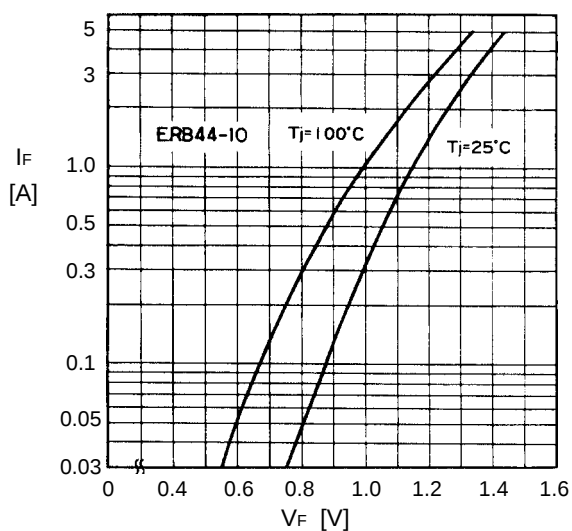
Forward characteristics



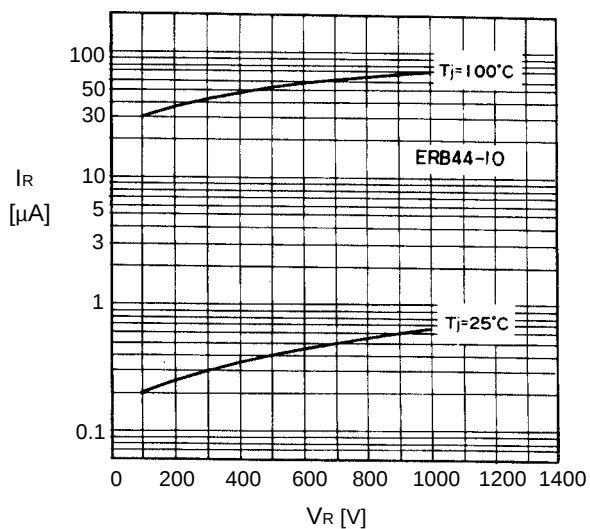
Reverse characteristics



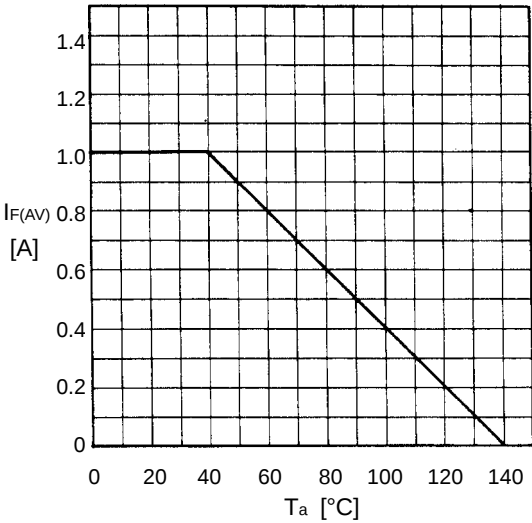
Forward characteristics



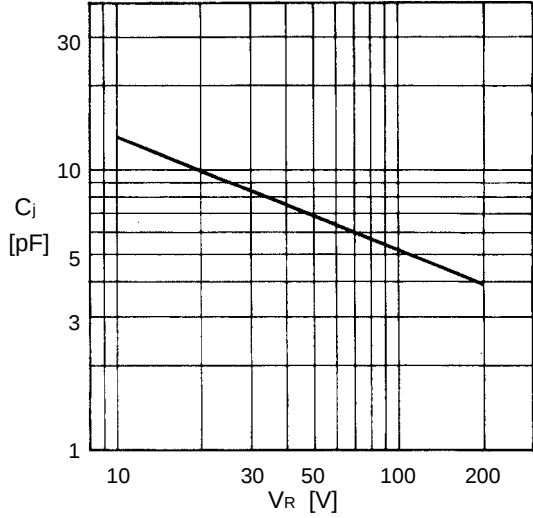
Reverse characteristics



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



Junction capacitance characteristics



Surge capability

