# ERB44 (1.0A) ( 200 to 1000V / 1.0A )

## FAST RECOVERY DIODE

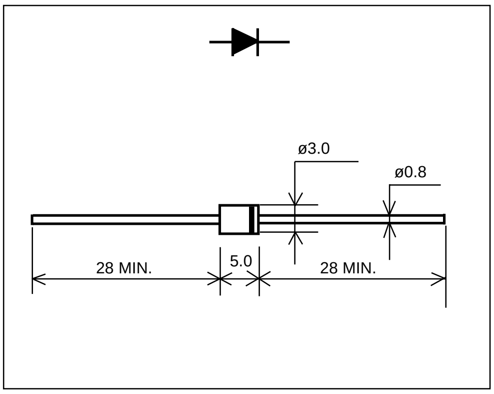
## Features

- High voltage by mesa design
- High reliability

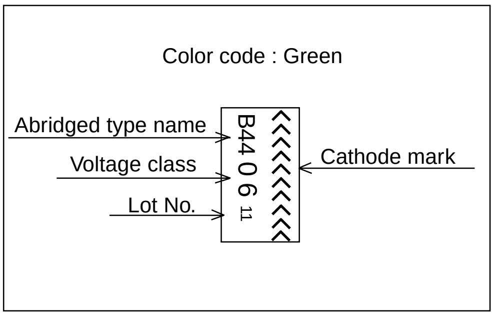
## Applications

- High speed switching

## Outline drawings, mm



## Marking



## Maximum ratings and characteristics

- Absolute maximum ratings

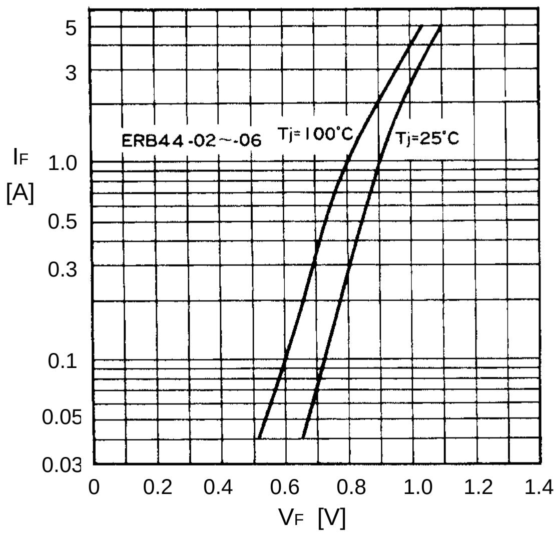
| Item | Symbol | Conditions | Rating | | | | | Unit |
|---|---|---|---|---|---|---|---|---|
| | | | -02 | -04 | -06 | -08 | -10 | |
| Repetitive peak reverse voltage | $V_{RRM}$ | | 200 | 400 | 600 | 800 | 1000 | V |
| Average forward current | $I_{F(AV)}$ | Resistive load | 1.0(Ta=40°C) | | | | 1.0(Ta=25°C)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

- Electrical characteristics (Ta=25°C Unless otherwise specified )

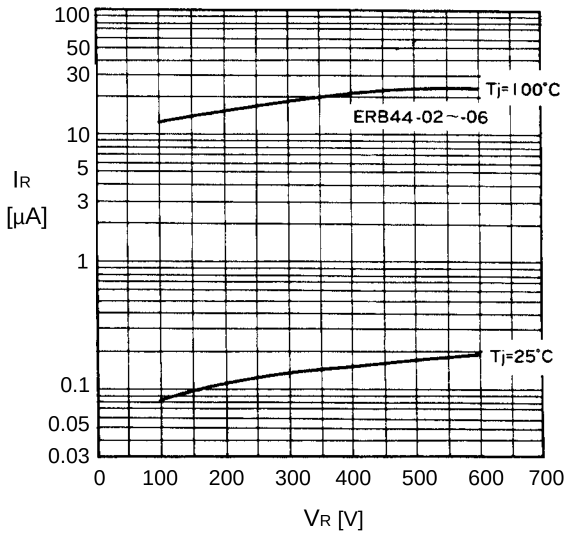
| Item | Symbol | Conditions | Max. | | Unit |
|---|---|---|---|---|---|
| | | | -02 to -08 | -10 | |
| Forward voltage drop | $V_{FM}$ | $I_{FM}$=1.0A | 1.1 | 1.5 | V |
| Reverse current | $I_{RRM}$ | $V_R$=$V_{RRM}$ | 10 | | µA |
| Reverse recovery time | t rr | $I_F$=0.1A, $I_R$=0.1A | 0.4 | | µs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

## Characteristics

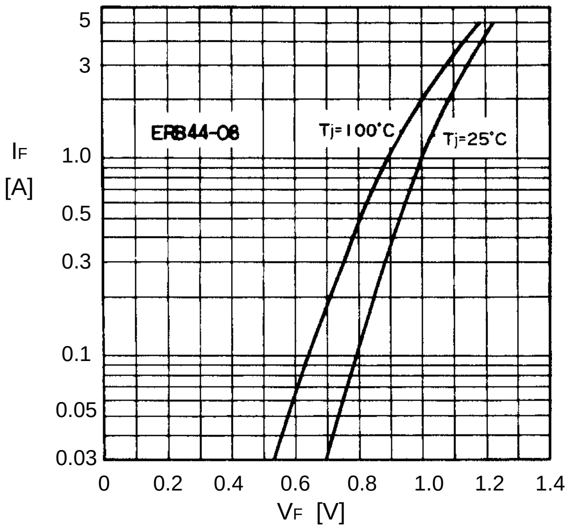
Forward characteristics



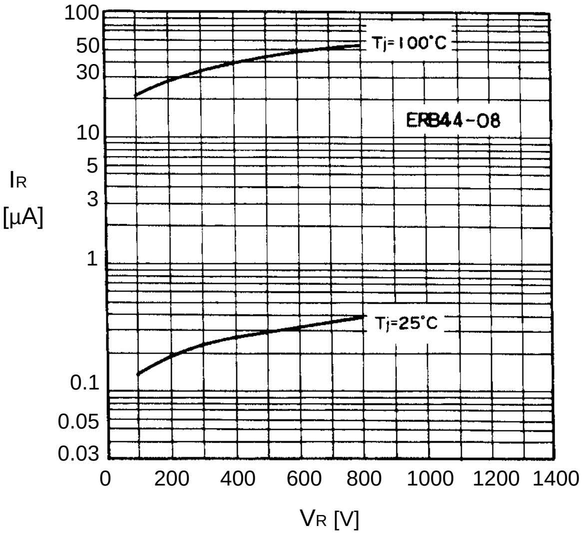
Reverse characteristics



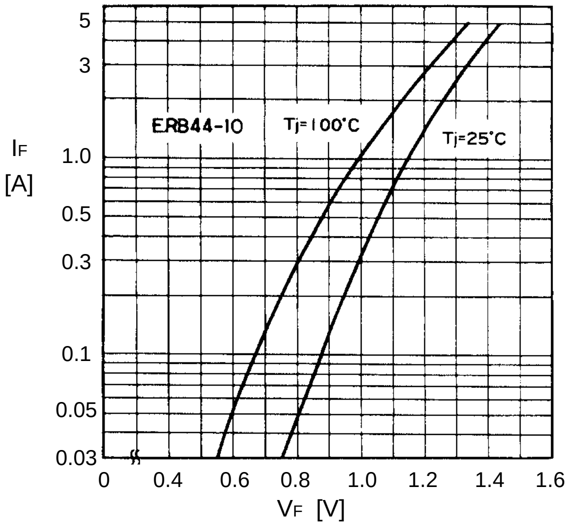
Forward characteristics



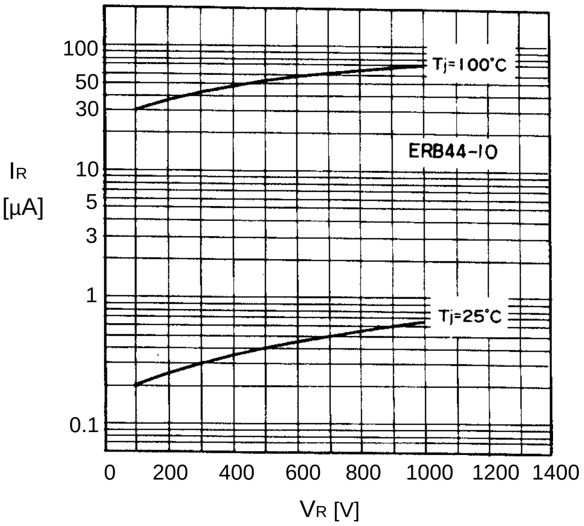
Reverse characteristics



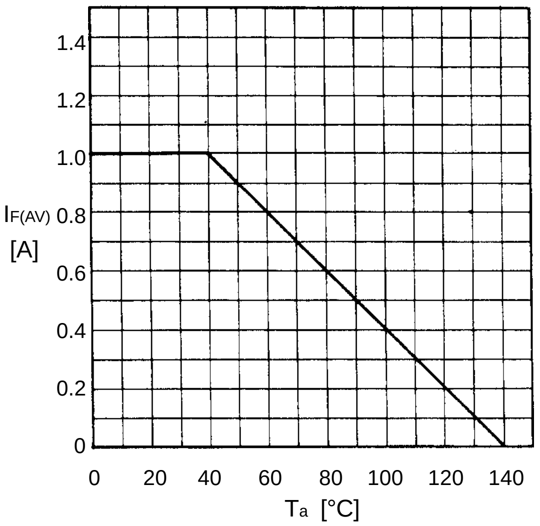
Forward characteristics



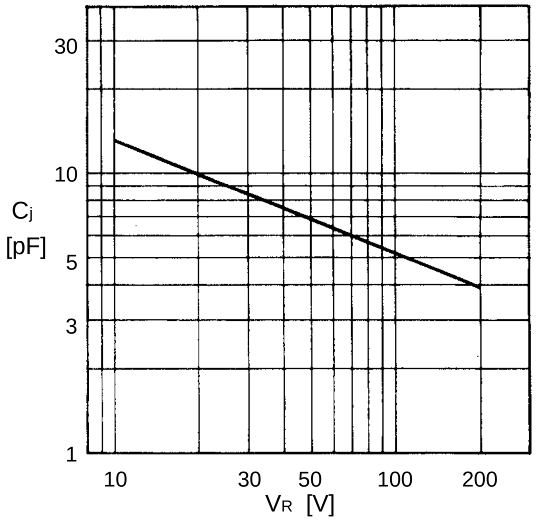
Reverse characteristics



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



Junction capacitance characteristics



Surge capability