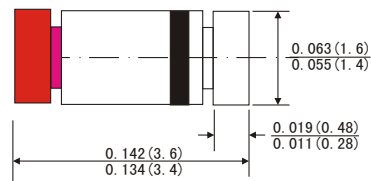


### FEATURES

- Metal-on-silicon junction
- Low turn-on voltage
- Ultrafast switching speed
- Primarily intended for high level UHF detection and pulse applications with broad dynamic range
- The diode is also available in the DO-35 case with type designation BAT45
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



### MiniMELF



### MECHANICAL DATA

- Case: MiniMELF glass case(SOD-80 )
- Weight: Approx. 0.05 gram

Dimensions in inches and (millimeters)

### ABSOLUTE RATINGS(LIMITING VALUES)

|                                                    | Symbols       | Value       | Units |
|----------------------------------------------------|---------------|-------------|-------|
| Peak Reverse Voltage                               | $V_{RRM}$     | 15          | V     |
| Surge non repetitive Forward current $t_p \leq 1S$ | $I_{FSM}$     | 2.0         | A     |
| Forward Continuous Current                         | $I_F$         | 30          | mA    |
| Operation and storage temperature range            | $T_A/T_{STG}$ | -65 to +150 | °C    |

### ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified)

|                                                                   | Symbols         | Min. | Typ. | Max. | Units |
|-------------------------------------------------------------------|-----------------|------|------|------|-------|
| Reverse breakover voltage<br>at $I_R = 10\mu A$                   | $V_R$           | 15   |      |      | V     |
| Leakage current at $V_R = 6V$                                     | $I_R$           |      |      | 100  | nA    |
| Forward voltage drop<br>at $I_F = 1mA$                            | $V_F$           |      |      | 0.38 | V     |
| Test pulse: $t_p \leq 300\mu s$ $\delta < 2\%$<br>at $I_F = 10mA$ | $V_F$           |      |      | 0.5  | V     |
| at $I_F = 30mA$                                                   | $V_F$           |      |      | 1    | V     |
| Junction Capacitance at $V_R = 1V$ , $f = 1MHz$                   | $C_J$           |      |      | 1.1  | pF    |
| Thermal resistance                                                | $R_{\theta JA}$ |      |      | 400  | K/W   |

# RATINGS AND CHARACTERISTIC CURVES LL45

Figure 1. Forward current versus forward voltage at different temperatures(typical values)

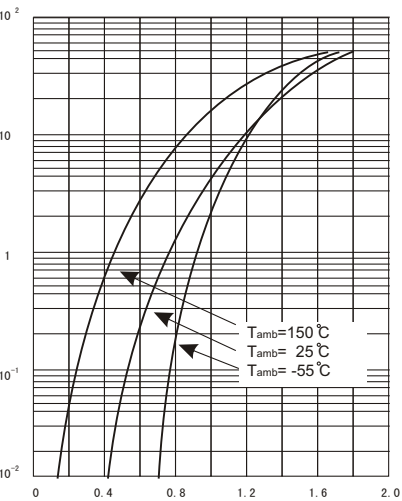


Figure 2. Capacitance  $C_J$  versus reverse applied voltage  $V_R$  (typical values)

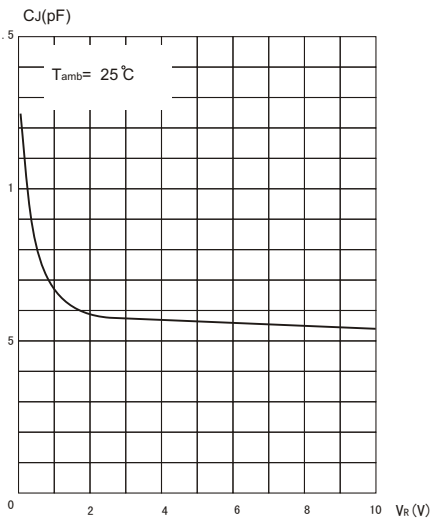


Figure 3.Reverse current versus ambient temperature

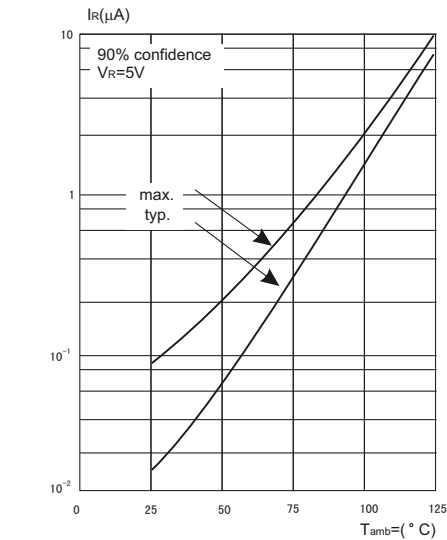


Figure 4.Reverse current versus continuous revers voltage (typical values)

