

## SILICON EPITAXIAL PLANAR DIODE

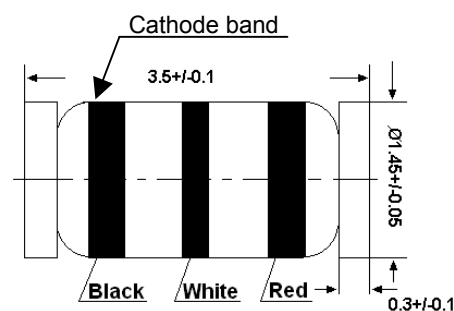
LL-34

## Features

- Small package
- Low forward voltage
- Fast reverse recovery time
- Small total capacitance

## Applications

Extreme fast switches



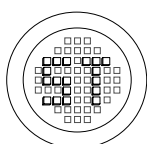
Glass case MiniMELF  
Dimensions in mm

Absolute Maximum Ratings ( $T_j = 25^\circ\text{C}$ )

| Parameter                    | Symbol    | Value        | Unit             |
|------------------------------|-----------|--------------|------------------|
| Maximum Peak Reverse Voltage | $V_{RM}$  | 85           | V                |
| Reverse Voltage              | $V_R$     | 80           | V                |
| Maximum Peak Forward Current | $I_{FM}$  | 200          | mA               |
| Surge Current (10ms)         | $I_{FSM}$ | 1            | A                |
| Average Forward Current      | $I_o$     | 100          | mA               |
| Power Dissipation            | $P_{tot}$ | 200          | mW               |
| Junction Temperature         | $T_j$     | 125          | $^\circ\text{C}$ |
| Storage Temperature Range    | $T_s$     | -55 ... +125 | $^\circ\text{C}$ |

Characteristics at  $T_j = 25^\circ\text{C}$ 

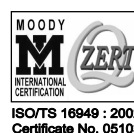
| Parameter             | Test Conditions            | Symbol   | Min | Typ  | Max | Unit          |
|-----------------------|----------------------------|----------|-----|------|-----|---------------|
| Forward Voltage       | $I_F = 1\text{mA}$         | $V_F$    | -   | 0.62 | -   | V             |
|                       | $I_F = 10\text{mA}$        | $V_F$    | -   | 0.75 | -   | V             |
|                       | $I_F = 100\text{mA}$       | $V_F$    | -   | 0.98 | 1.2 | V             |
| Reverse Current       | $V_R = 30\text{V}$         | $I_R$    | -   | -    | 0.1 | $\mu\text{A}$ |
|                       | $V_R = 80\text{V}$         | $I_R$    | -   | -    | 0.5 | $\mu\text{A}$ |
| Total Capacitance     | $V_R = 0, f = 1\text{MHz}$ | $C_T$    | -   | 0.5  | 3   | pF            |
| Reverse Recovery Time | $I_F = 10\text{mA}$        | $t_{rr}$ | -   | 1.6  | 4   | ns            |



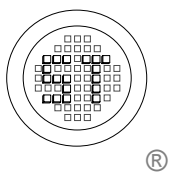
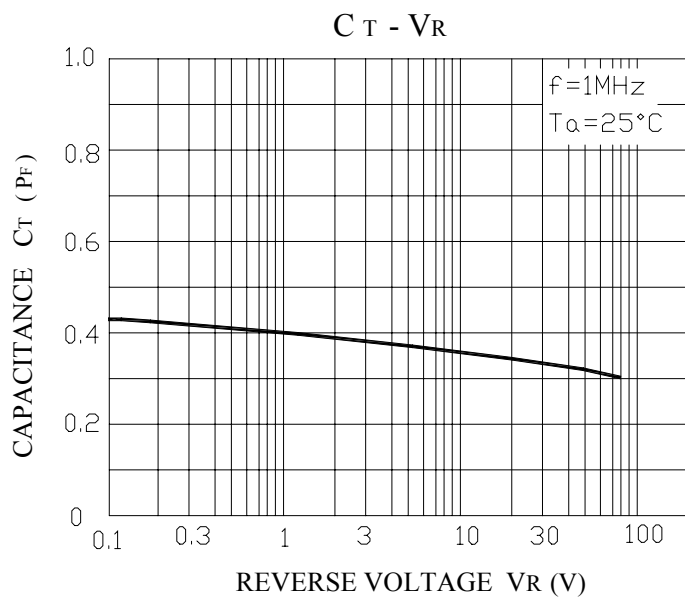
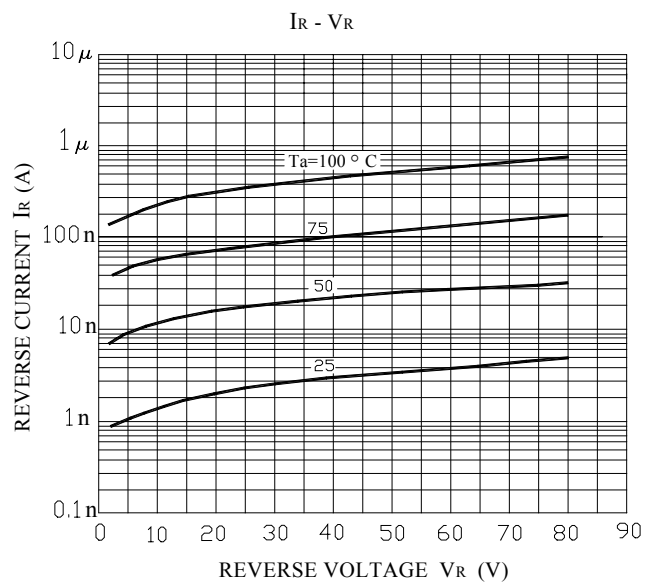
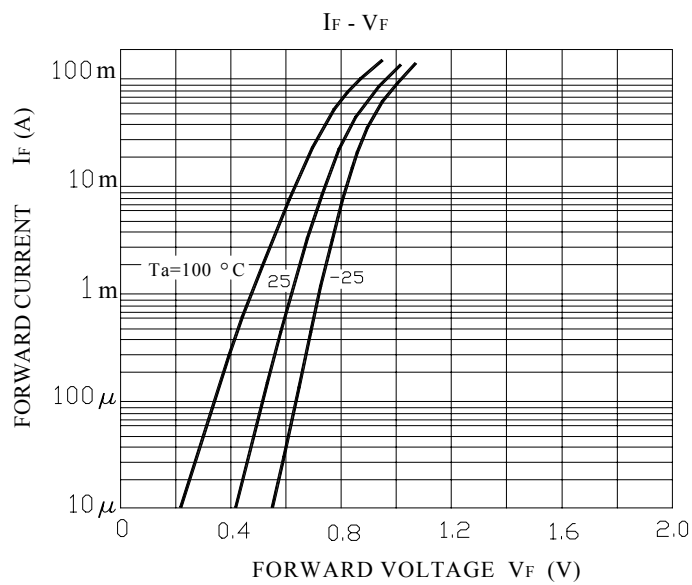
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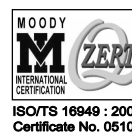
(Subsidiary of Semtech International Holdings Limited, a company  
listed on the Hong Kong Stock Exchange, Stock Code: 724)



Dated : 02/04/2005



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