



DCB010 — Silicon Epitaxial Planar Type (Cathode Common) Very High-Speed Switching Diode

Features

- Ideally suited for use in hybrid ICs because of very small-sized package.
- Fast switching speed.
- Small interterminal capacitance.

Specifications

Absolute Maximum Ratings at $T_c=25^\circ\text{C}$

| Parameter | Symbol | Conditions | Ratings | Unit |
|-----------------------------|-------------|------------|-------------|------------------|
| Peak Reverse Voltage | V_{RM} | | 85 | V |
| Reverse Voltage | V_R | | 80 | V |
| Peak Forward Current | I_{FM} | | 300 | mA |
| | I_{FM}^* | | 450 | mA |
| Average Rectified Current | I_O | | 100 | mA |
| | I_O^* | | 150 | mA |
| Surge Current (1 μ s) | I_{FSM} | | 4 | A |
| | I_{FSM}^* | | 6 | A |
| Allowable Power Dissipation | P | | 200 | mW |
| Junction Temperature | T_j | | 125 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | | -55 to +125 | $^\circ\text{C}$ |

* : Total value

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

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|-----------------|----------|--------------------|---------|------|------|---------------|
| | | | min | typ | max | |
| Forward Voltage | V_{F1} | $I_F=1\text{mA}$ | | 0.60 | | V |
| | V_{F2} | $I_F=10\text{mA}$ | | 0.72 | | V |
| | V_{F3} | $I_F=100\text{mA}$ | | | 1.20 | V |
| Reverse Current | I_{R1} | $V_R=30\text{V}$ | | | 0.1 | μA |
| | I_{R2} | $V_R=80\text{V}$ | | | 0.5 | μA |

Marking: W6

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DCB010

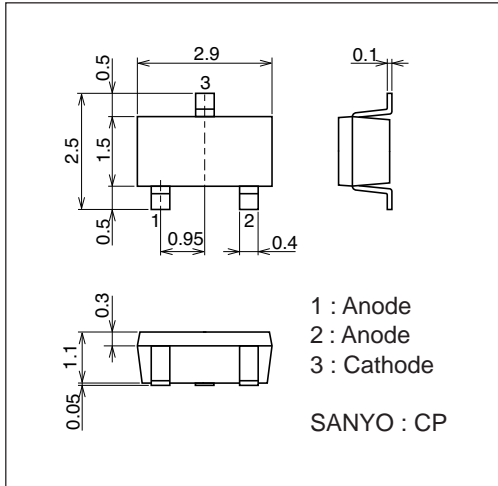
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| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---------------------------|----------|--|---------|-----|-----|------|
| | | | min | typ | max | |
| Interterminal Capacitance | C | $V_R=0V, f=1MHz$ | | | 3.0 | pF |
| Reverse Recovery Time | t_{rr} | $I_F=10mA, V_R=6V, R_L=50\Omega, I_{rr}=0.1I_{rp}$ | | | 4.0 | ns |

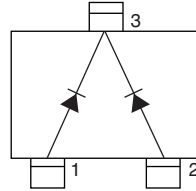
Package Dimensions

unit : mm (typ)

7013A-006

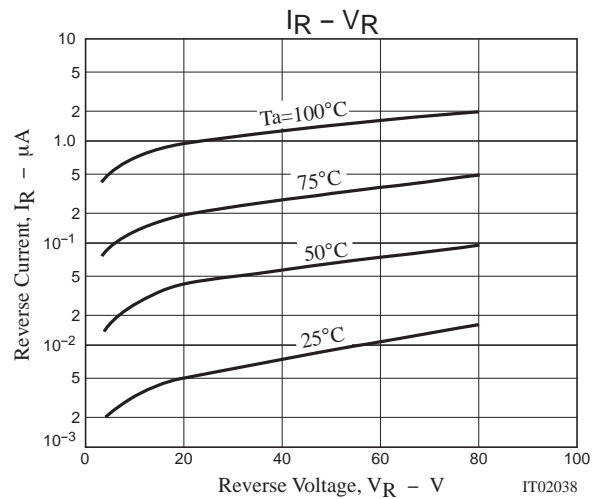
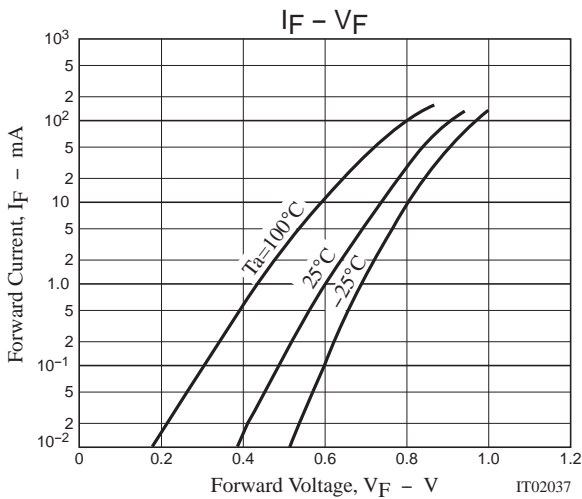
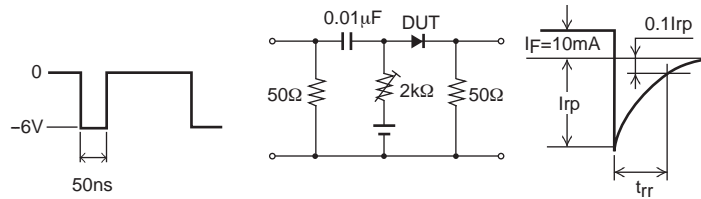


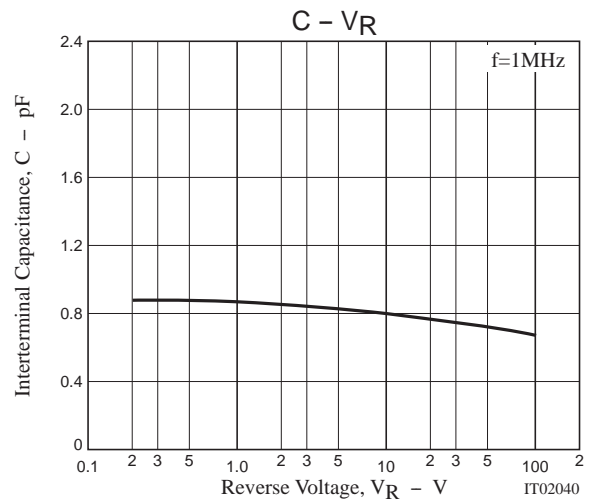
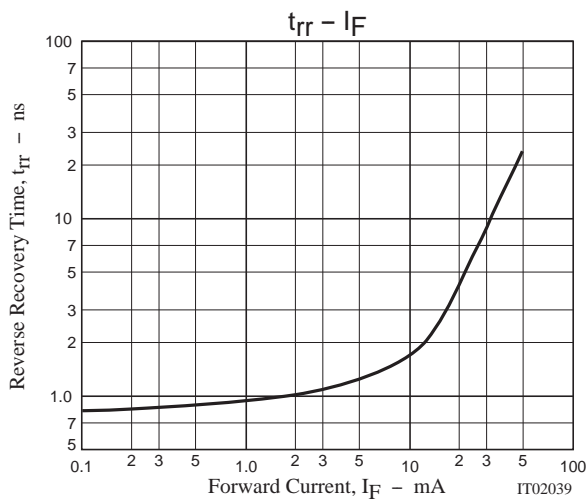
Electrical Connection



1 : Anode
2 : Anode
3 : Cathode
Top view

Reverse Recovery Time Test Circuit







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