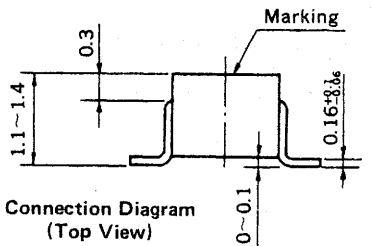
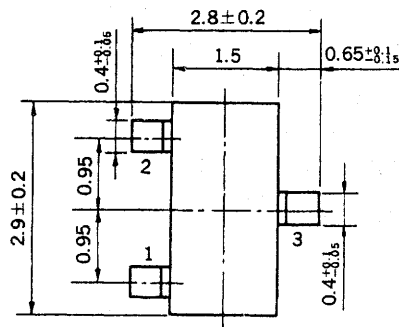
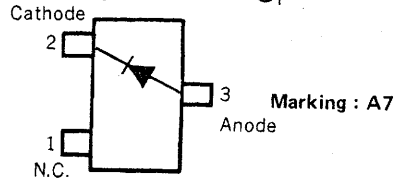


HIGH SPEED SWITCHING
SILICON EPITAXIAL DIODES
MINI MOLD

PACKAGE DIMENSIONS
in millimeters



Connection Diagram
(Top View)



FEATURES

- Low capacitance: $C_t = 4.0$ pF MAX.
- High speed switching: $t_{rr} = 3.0$ ns MAX.
- Wide applications including switching, limiter, clipper.

ABSOLUTE MAXIMUM RATINGS

Maximum Voltages and Currents ($T_a = 25$ °C)

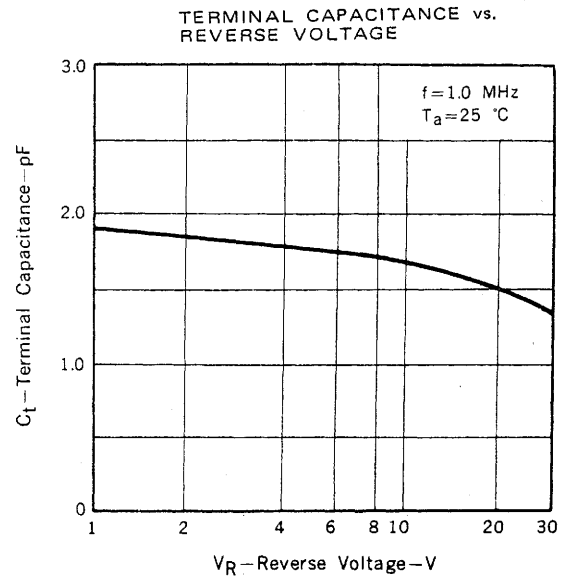
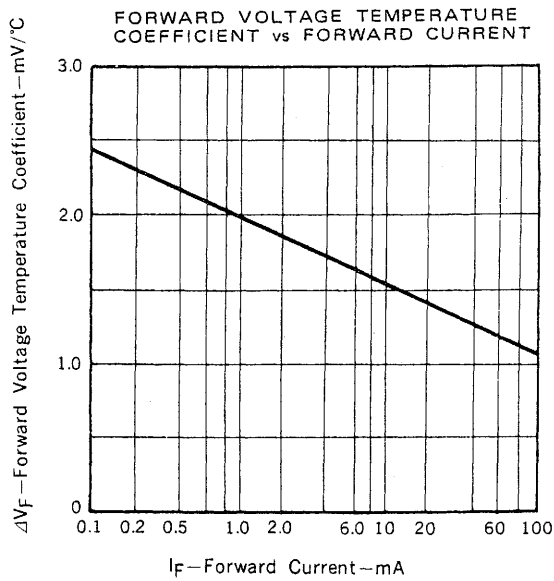
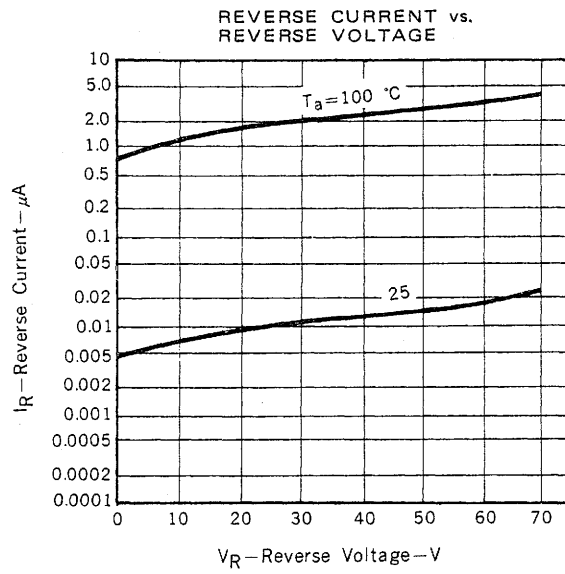
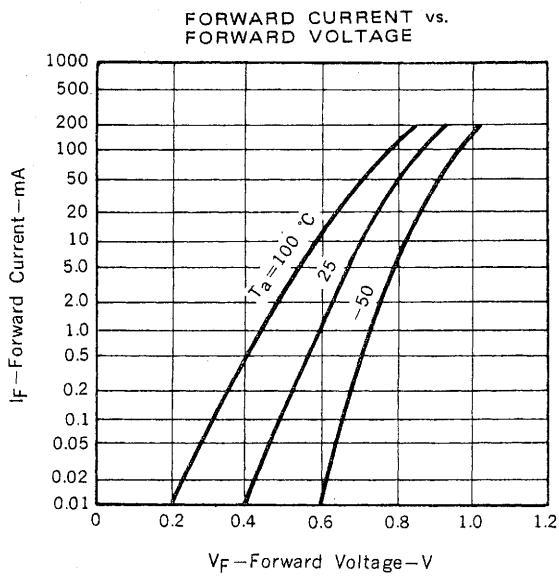
| | | 1SS222 | 1SS223 | |
|---------------------------|---------------|-------------|--------|-------|
| Peak Reverse Voltage | V_{RM} | 70 | 100 | V |
| DC Reverse Voltage | V_R | 70 | 100 | V |
| Peak Forward Current | I_{FM} | 300 | 300 | mA |
| Average Rectified Current | I_O | 100 | 100 | mA |
| DC Forward Current | I_F | 100 | 100 | mA |
| Maximum Temperatures | | | | |
| Junction Temperature | T_j | 150 | | °C |
| Storage Temperature Range | T_{stg} | -55 to +150 | | °C |
| Thermal Resistance | | | | |
| Junction to Ambient | $R_{th(j-a)}$ | 0.67 | | °C/mW |

ELECTRICAL CHARACTERISTICS ($T_a = 25$ °C)

| CHARACTERISTIC | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITIONS |
|-----------------------|----------|------|------|------|---------|--|
| Forward Voltage | V_{F1} | | 720 | 850 | mV | $I_F = 10$ mA |
| | V_{F2} | | 850 | 1000 | mV | $I_F = 50$ mA |
| | V_{F3} | | 950 | 1200 | mV | $I_F = 100$ mA |
| Reverse Current | I_R | | | 1.0 | μ A | $V_R = 70$ V |
| | | | | 1.0 | μ A | $V_R = 100$ V |
| Capacitance | C_t | | 2.0 | 4.0 | pF | $V_R = 0, f = 1.0$ MHz |
| Reverse Recovery Time | t_{rr} | | | 3.0 | ns | $I_F = 10$ mA, $V_R = 6$ V, $R_L = 100$ Ω , See Test Circuit. |

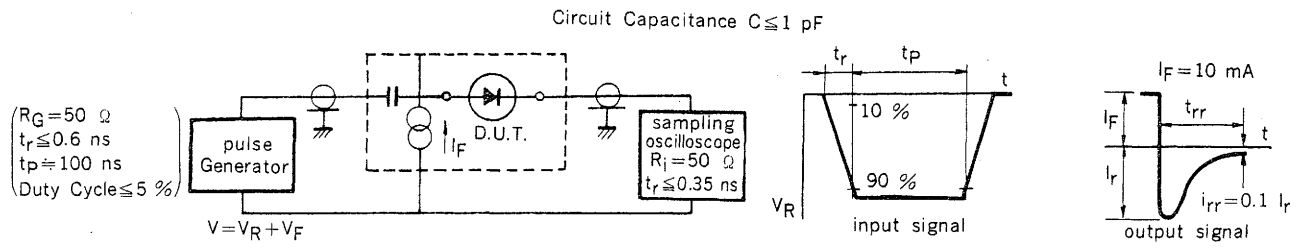
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TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)



SWITCHING CHARACTERISTICS TEST CIRCUIT

Reverse recovery time : t_{rr}



Test circuit
 $I_F = 10$ mA, $V_R = 6.0$ V

Wave forms

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