

HIGH SPEED SWITCHING
SILICON EPITAXIAL DOUBLE DIODE : COMMON ANODE

FEATURES

- Low capacitance: $C_t = 2.5$ pF TYP.
- High speed switching: $t_{rr} = 4.0$ ns MAX.
- Wide applications including switching, limiter, clipper.
- Double diode configuration assures economical use.

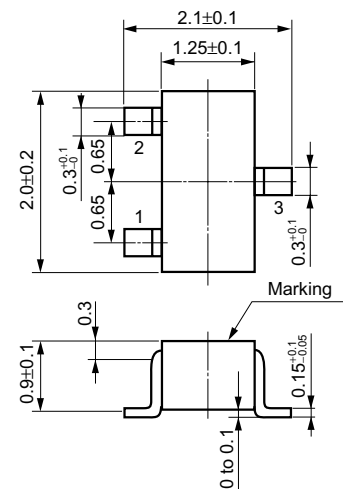
ABSOLUTE MAXIMUM RATINGS

Maximum Voltages and Currents ($T_A = 25^\circ\text{C}$)

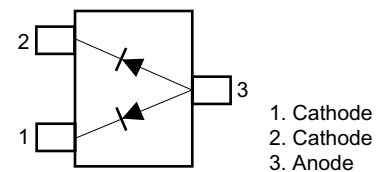
| | | | |
|--|---------------|--------------|----------------------------|
| Peak Reverse Voltage | V_{RM} | 75 | V |
| DC Reverse Voltage | V_R | 50 | V |
| Surge Current (1 μs) ^{Note} | I_{FSM} | 6.0 | A |
| Surge Current (1 μs) | I_{FSM} | 4.0 | A |
| Peak Forward Current ^{Note} | I_{FM} | 450 | mA |
| Peak Forward Current | I_{FM} | 300 | mA |
| Average Rectified Current ^{Note} | I_o | 150 | mA |
| Average Rectified Current | I_o | 100 | mA |
| Maximum Temperatures | | | |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | -55 to + 150 | $^\circ\text{C}$ |
| Thermal Resistance | | | |
| Junction to Ambient ^{Note} | $R_{th(j-a)}$ | 1.0 | $^\circ\text{C}/\text{mW}$ |
| Junction to Ambient | $R_{th(j-a)}$ | 0.85 | $^\circ\text{C}/\text{mW}$ |

Note Both diodes loaded simultaneously.

PACKAGE DIMENSIONS (Unit: mm)



CONNECTION DIAGRAM (Top View)



1. Cathode
2. Cathode
3. Anode

Marking : A4

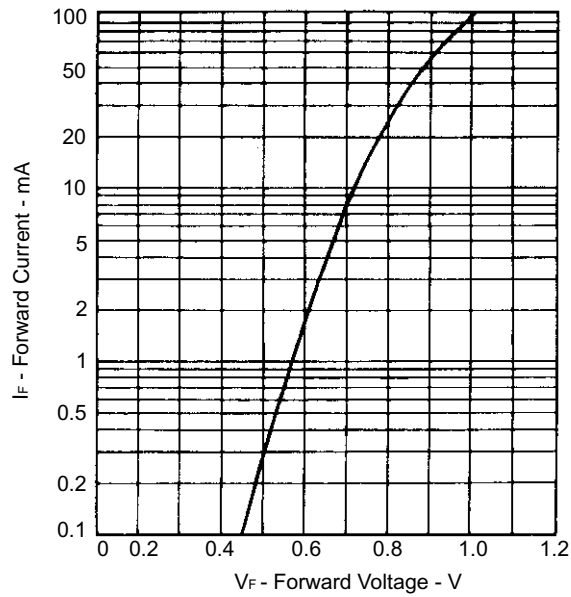
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

| CHARACTERISTICS | SYMBOL | TEST CONDITIONS | MIN. | TYP. | MAX. | UNIT |
|-----------------------|----------|----------------------------|------|------|------|---------------|
| Forward Voltage | V_{F1} | $I_F = 10$ mA | | 0.72 | 1.0 | V |
| | V_{F2} | $I_F = 50$ mA | | 0.88 | 1.1 | V |
| | V_{F3} | $I_F = 100$ mA | | 1.0 | 1.2 | V |
| Reverse Current | I_R | $V_R = 50$ V | | | 0.1 | μA |
| Capacitance | C_t | $V_R = 0$ V, $f = 1.0$ MHz | | 2.5 | 4.0 | pF |
| Reverse Recovery Time | t_{rr} | See Test Circuit. | | | 4.0 | ns |

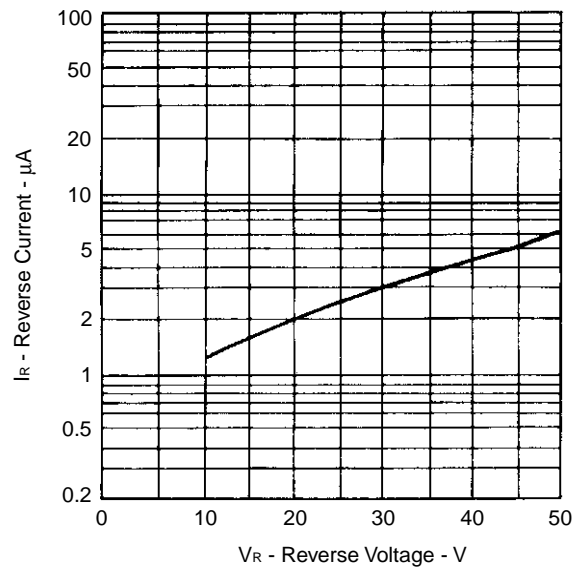
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TYPICAL ELECTRICAL CURVES (T_A = 25°C)

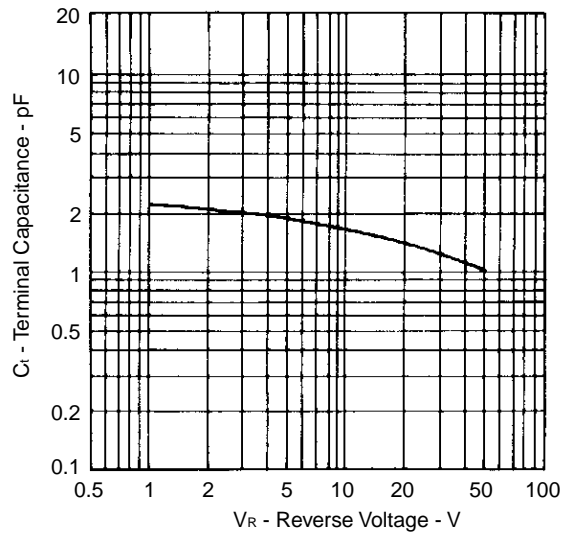
FORWARD CURRENT vs.
FORWARD VOLTAGE



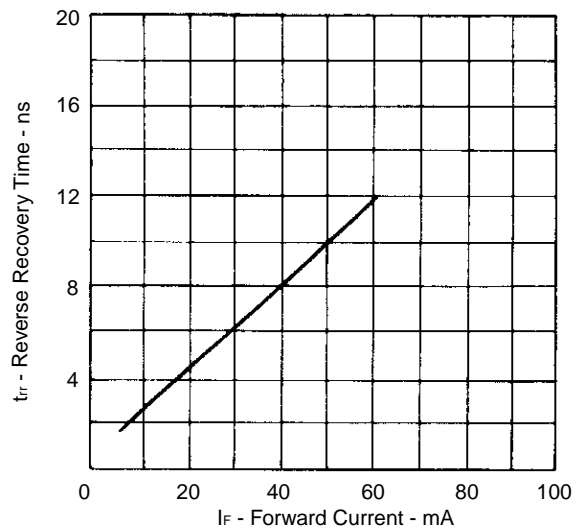
REVERSE CURRENT vs.
REVERSE VOLTAGE



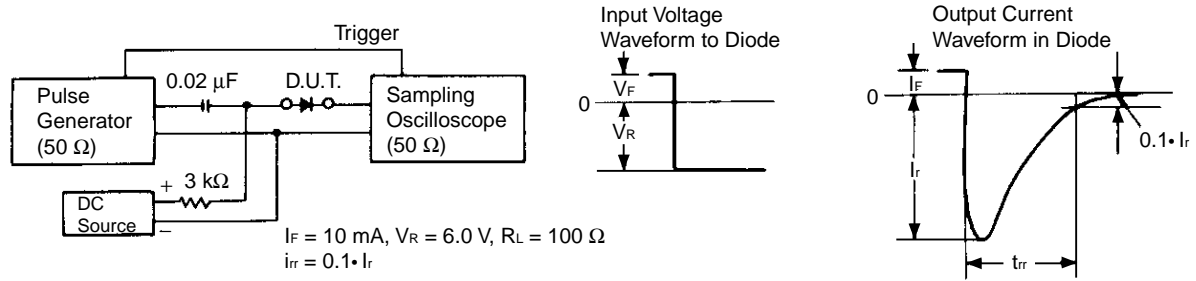
TERMINAL CAPACITANCE vs.
REVERSE VOLTAGE



REVERSE RECOVERY TIME vs.
FORWARD CURRENT



REVERSE RECOVERY TIME (t_{rr}) TEST CIRCUIT



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