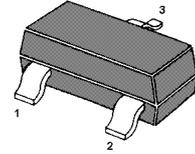
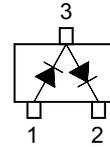




Fast switching in thick and thin-film circuits diode



Marking Code: A7  
SOT-23 Plastic Package

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

| Parameter  | Symbol    | Value                                | Unit             |
|--|-----------|--------------------------------------|------------------|
| Repetitive Peak Reverse Voltage                  | $V_{RRM}$ | 85                                   | V                |
| Continuous Reverse Voltage                       | $V_R$     | 75                                   | V                |
| Continuous Forward Current (Double Diode Loaded) | $I_F$     | 125                                  | mA               |
| Continuous Forward Current (Single Diode Loaded) | $I_F$     | 215                                  | mA               |
| Repetitive Peak Forward Current                  | $I_{FRM}$ | 450                                  | mA               |
| Non-repetitive Peak Forward Surge Current        | $I_{FSM}$ | at $t = 1\text{ s}$<br>0.5           | A                |
|  |           | at $t = 1\text{ ms}$<br>1            |                  |
|  |           | at $t = 1\text{ }\mu\text{s}$<br>4.5 |                  |
| Power Dissipation                                | $P_{tot}$ | 350                                  | mW               |
| Junction Temperature                             | $T_j$     | 150                                  | $^\circ\text{C}$ |
| Storage Temperature Range                        | $T_{stg}$ | - 65 to + 150                        | $^\circ\text{C}$ |

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

| Parameter   | Symbol | Max.                        | Unit |                     |                      |    |
|---|--------|-----------------------------|------|---------------------|----------------------|----|
| Forward Voltage<br>at $I_F = 1\text{ mA}$<br>at $I_F = 10\text{ mA}$<br>at $I_F = 50\text{ mA}$<br>at $I_F = 150\text{ mA}$   | $V_F$  | 0.715<br>0.855<br>1<br>1.25 | V    |                     |                      |    |
| Reverse Current<br>at $V_R = 25\text{ V}$<br>at $V_R = 75\text{ V}$<br>at $V_R = 25\text{ V}, T_j = 150\text{ }^\circ\text{C}$<br>at $V_R = 75\text{ V}, T_j = 150\text{ }^\circ\text{C}$ |        | $I_R$                       |      | 30<br>1<br>30<br>50 | nA<br>uA<br>uA<br>uA |    |
| Diode Capacitance<br>at $V_R = 0, f = 1\text{ MHz}$   |        |                             |      | $C_d$               | 1.5                  | pF |
| Reverse Recovery Time<br>at $I_F = I_R = 10\text{ mA}, I_R = 1\text{ mA}, R_L = 100\text{ }\Omega$  |        |                             |      | $t_{rr}$            | 4                    | ns |

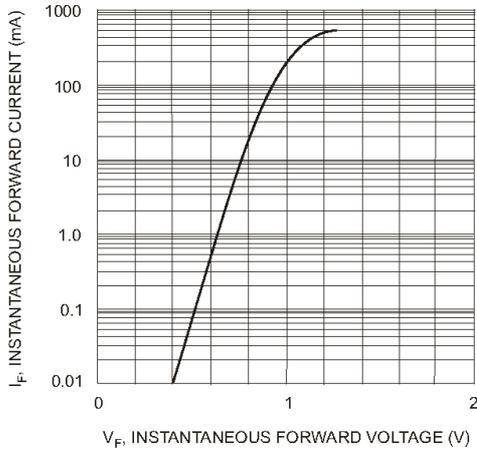


Fig. 1 Forward Characteristics

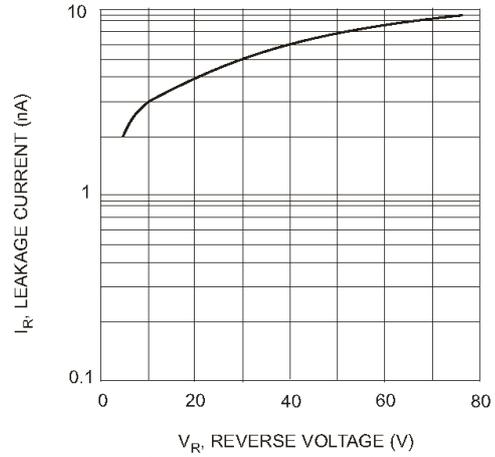


Fig. 2 Typical Leakage Current vs Reverse Voltage

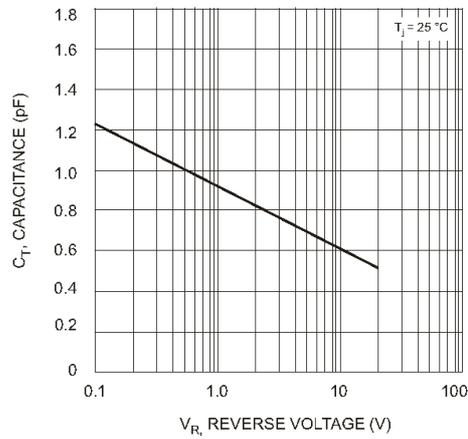


Fig. 3 Typical Total Capacitance vs Reverse Voltage