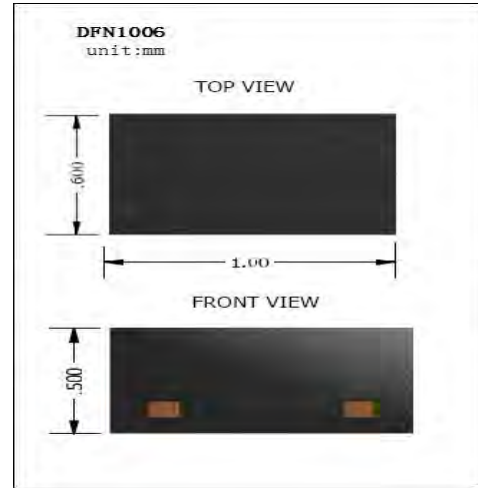


Switching Diode

- Fast switching devices
- Low Reverse Leakage Current
- ROHS Compliant
- UL-94 V-0 / Green EMC
- Matte Tin Lead finish (Pb-Free)

| Device Marking Code | |
|---------------------|----|
| FDS16DFN1006 | S2 |



Maximum Ratings (Tamb=25°C unless otherwise specified)

| Symbol | Parameter | Value | Units |
|-----------|---|-------------|-------|
| V_{RSM} | Non-Repetitive Peak Reverse Voltage | 100 | V |
| V_{RRM} | Peak Repetitive Reverse Voltage | 75 | V |
| V_{RWM} | Working Peak Reverse Voltage | | |
| V_R | DC Blocking Voltage | | |
| I_{FRM} | Repetitive Peak Forward Current | 300 | mA |
| I_O | Average Forward Current | 100 | mA |
| I_{FSM} | Non-Repetitive Peak Forward Current ^{*1} | 2 | A |
| P_D | Power Dissipation | 200 | mW |
| T_J | Junction Temperature | 150 | °C |
| T_{STG} | Storage Temperature | -55 to +150 | °C |

*1: Pulse width = 1μs



FDS16DFN1006

Electrical Characteristics (TA=25°C unless otherwise specified)

| Symbol | Parameter | Conditions | Min | Typ | Max | Units |
|----------|-------------------------------|---|------|-----|------------------------------|-------|
| V_R | Reverse Voltage | $I_R=100\mu A$ | 75 | | | V |
| V_F | Forward Voltage | $I_F=5mA$ $I_F=10mA$ $I_F=100mA$ $I_F=150mA$ | 0.62 | | 0.72 0.855 1.0 1.25 | V |
| I_R | Reverse Leakage Current | $V_R=80V$ $V_R=20V$ | | | 100 25 | nA |
| C_T | Capacitance between terminals | $V_R = 0.5V, f = 1MHz$ | | | 3 | pF |
| T_{RR} | Reverse Recovery Time | $I_F = I_R=10mA$ $I_{RR} = 1mA, R_L= 100\Omega$ | | | 4 | ns |

ELECTRICAL CHARACTERISTIC CURVES

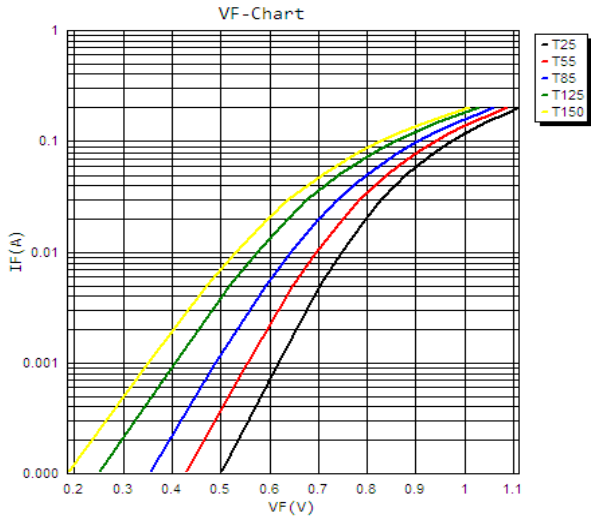


Fig.1 Forward current(IF) vs Forward voltage(VF)

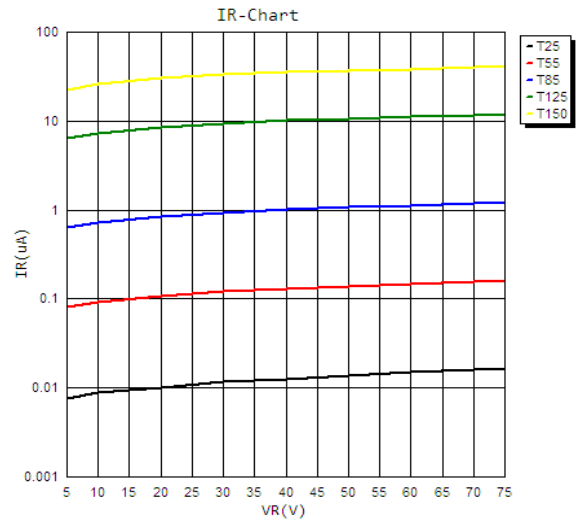


Fig.2 Reverse current(IR) vs Reverse voltage(VR)

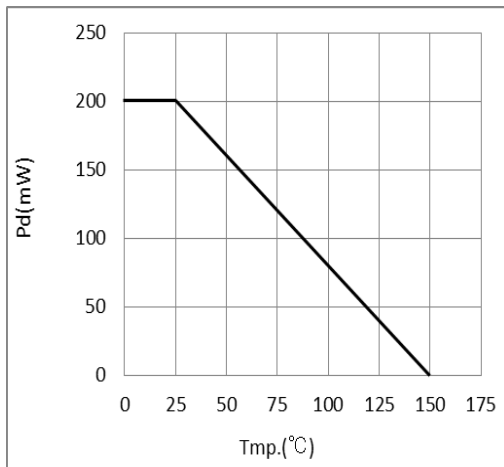


Fig.3 Power Derating Curve

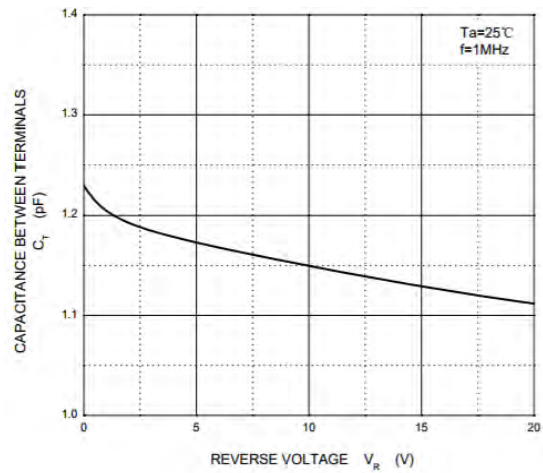


Fig.4 Capacitance vs Reverse voltage(VR)

Package Dimensions

Package outline : DFN1006-2L

