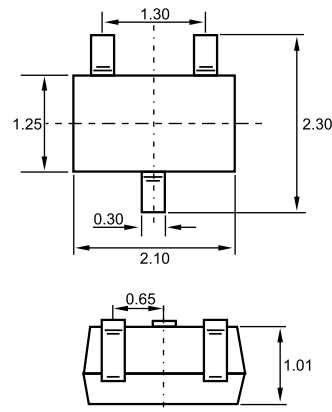


SOT-323



Dimensions in inches and (millimeters)

Features

- ✧ Fast $t_{rr} < 10\text{ns}$.
- ✧ Low $C_D, < 15\text{pF}$.
- ✧ Pb/RoHS Free.

Applications

- ✧ For high speed switching applications.

Ordering Information

| Type No. | Marking | Package Code |
|-----------|---------|--------------|
| M1MA141WA | MN | SOT-323 |
| M1MA142WA | MO | SOT-323 |

MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

| Parameter | Symbol | Limits | Unit |
|---------------------------------|-----------|----------|------------------|
| Peak reverse voltage | V_{RM} | 40 | V |
| Reverse voltage | V_R | 40 | V |
| Peak forward Current(max.) | I_{FM} | 225 | mA |
| Forward output Current | I_F | 100 | mA |
| Peak Forward Surge Current (1s) | I_{FSM} | 500 | mA |
| Power Dissipation | P_d | 150 | mW |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature range | T_{stg} | -55-+150 | $^\circ\text{C}$ |



ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

| Parameter | Symbol | Test conditions | MIN | MAX | UNIT |
|---------------------------|----------|---|-----|-----|---------|
| Reverse Breakdown voltage | V_R | $I_R=100\mu A$ | 40 | | V |
| M1MA141WA M1MA142WA | | | 80 | | |
| Reverse current | I_R | $V_R=35V$ | | 0.1 | μA |
| M1MA141WA M1MA142WA | | $V_R=75V$ | | | |
| Forward voltage | V_F | $I_F=100mA$ | | 1.2 | V |
| Diode capacitance | C_D | $V_R=0V, f=1MHz$ | | 15 | pF |
| Reverse recovery time | t_{rr} | $V_R=6V, I_F=10mA,$ $R_L=100\Omega, I_{rr}=0.1I_R$ | | 10 | ns |

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

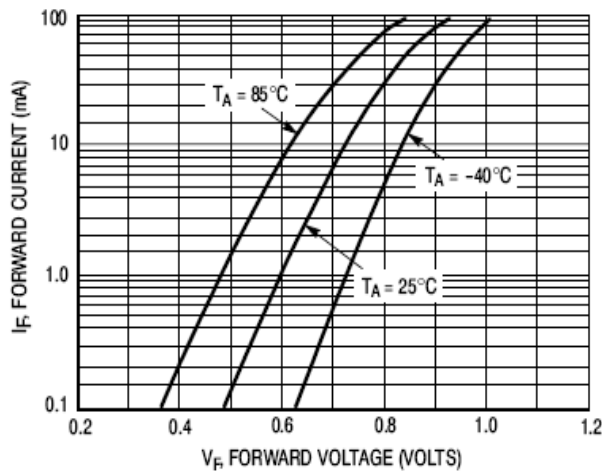


Figure 2. Forward Voltage

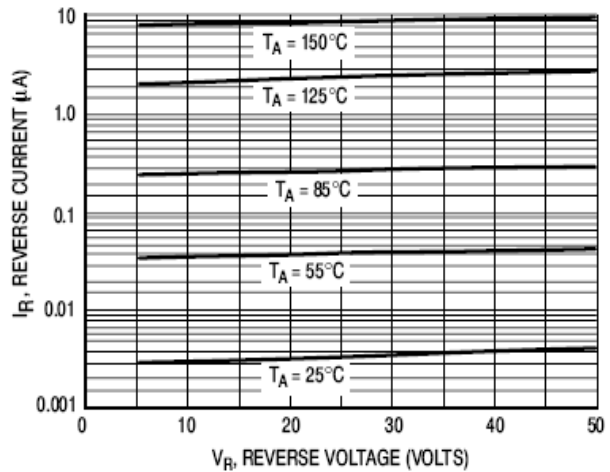


Figure 3. Reverse Current

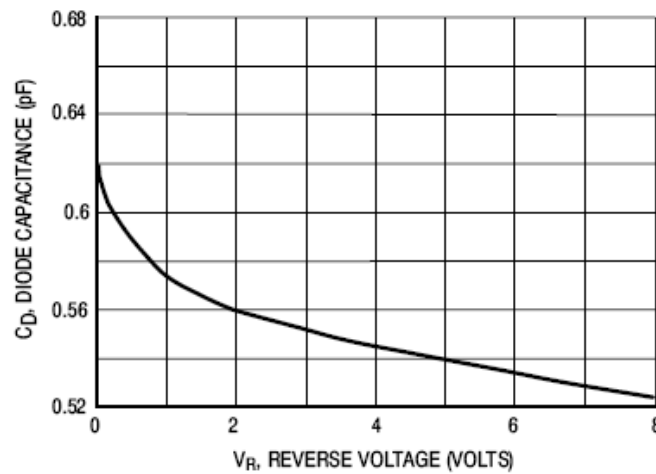


Figure 4. Diode Capacitance