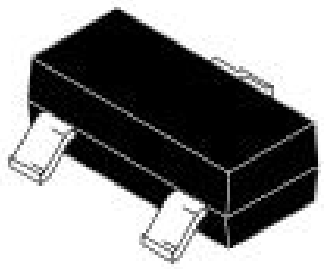
SILICON360

# MMBD7000LT1G:
## Dual Switching Diode
**Product Feature Sheet**

### Features
- AEC Q-101 qualified and PPAP capable
- S prefix for automotive and other applications requiring unique site and control change requirements
- These devices are Pb-free, halogen free/ BFR free and are RoHS compliant



### Ordering Information

| Device | Package |
|---|---|
| MMBD7000LTG1 | SOT-23 (Pb-Free) |
| SMMBD7000LT1G | SOT-23 (Pb-Free) |
| MMBD7000LT3G | SOT-23 (Pb-Free) |
| SMMBD7000LT3G | SOT-23 (Pb-Free) |

### Absolute Maximum Ratings:

| Rating | Symbol | Value | Unit |
|---|---|---|---|
| Reverse Voltage | $V_R$ | 100 | Vdc |
| Forward Current | $I_F$ | 200 | mAdc |

### Thermal Characteristics:

| Characteristics | Symbol | Max | Unit |
|---|---|---|---|
| Total Device Dissipation FR-5 Board<br>(Note 1) $T_A$ = 25°C<br>Derate Above 25°C | $P_D$ | 225<br><br>1.8 | mW<br><br>mW/°C |
| Thermal Resistance, Junction to Ambient | $R_{\theta JA}$ | 556 | °C/W |
| Total Device Dissipation<br>Alumina Substrate, (Note 2) $T_A$ = 25°C<br>Derate Above 25°C | $P_D$ | 300<br><br>2.4 | mW<br><br>mW/°C |
| Thermal Resistance<br>Junction-to-Ambient | $R_{\theta JA}$ | <br>417 | °C/W |
| Junction and Storage Temperature | $T_J$, $T_{stg}$ | -55 to +150 | °C |

### Electrical Characteristics ($T_A$ = 25°C unless otherwise noted) (Each Diode)

| Characteristics | Symbol | Min | Max | Unit |
|---|---|---|---|---|
| Reverse Breadown Voltage<br>($I_{(BR)}$ = 100 µAdc) | $V_{(BR)}$ | <br>100 | - | Vdc |
| Reverse Voltage Leakage Current<br>($V_R$ = 50 Vdc)<br>($V_R$ = 100 Vdc)<br>($V_R$ = 50 Vdc, 125°C) | <br>$I_R$<br>$I_{R2}$<br>$I_{R3}$ | <br>-<br>-<br>- | <br>1.0<br>3.0<br>100 | µAdc |
| Forward Voltage<br>($I_F$ = 1.0 mAdc)<br>($I_F$ = 10 mAdc)<br>($I_F$ = 100 mAdc) | $V_F$ | <br>0.55<br>0.67<br>0.75 | <br>0.7<br>0.82<br>1.1 | Vdc |
| Reverse Recovery Time<br>($I_{(BR)}$ = 100 µAdc) | $t_{rr}$ | <br>- | <br>4.0 | ns |
| Capacitance ($V_R$ = 0 V) | C | - | 1.5 | pF |