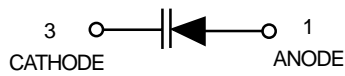


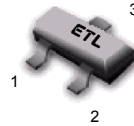
Silicon Tuning Diode

This device is designed in the surface Mount package for general frequency control and tuning applications. It provides solid-state reliability in replacement of mechanical tuning methods.

- Controlled and Uniform Tuning Ratio



MMBV105GLT1



CASE 318-08, STYLE 8
SOT- 23 (TO-236AB)

MAXIMUM RATINGS(EACH DIODE)

| Rating | Symbol | Value | Unit |
|---|-----------|-------------|----------------------|
| Reverse Voltage | V_R | 30 | Vdc |
| Forward Current | I_F | 200 | mAdc |
| Device Dissipation @ $T_A = 25^\circ\text{C}$ | P_D | 225 | mW |
| Derate above 25°C | | 1.8 | mW/ $^\circ\text{C}$ |
| Junction Temperature | T_J | +125 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

DEVICE MARKING

MMBV105GLT1=M4E

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

| Characteristic | Symbol | Min | Max | Unit |
|---|-------------|-----|-----|------|
| Reverse Breakdown Voltage ($I_R=10\mu\text{Adc}$) | $V_{(BR)R}$ | 30 | — | Vdc |
| Reverse Voltage Leakage Current ($V_R=28\text{Vdc}$) | I_R | — | 50 | nAdc |

| Device Type | C_T $V_R=25\text{Vdc}, f=1.0\text{MHz}$ pF | | Q $V_R=3.0\text{Vdc}$ $f=50\text{MHz}$ | C_R C_3/C_{25} $f=1.0\text{MHz}$ | |
|-------------|--|-----|--|--|-----|
| | Min | Max | Typ | Min | Max |
| MMBV105GLT1 | 1.5 | 2.8 | 250 | 4.0 | 6.5 |

TYPICAL CHARACTERISTICS

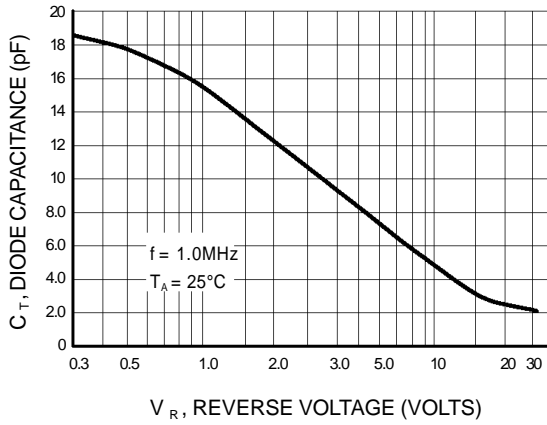


Figure 1. Diode Capacitance

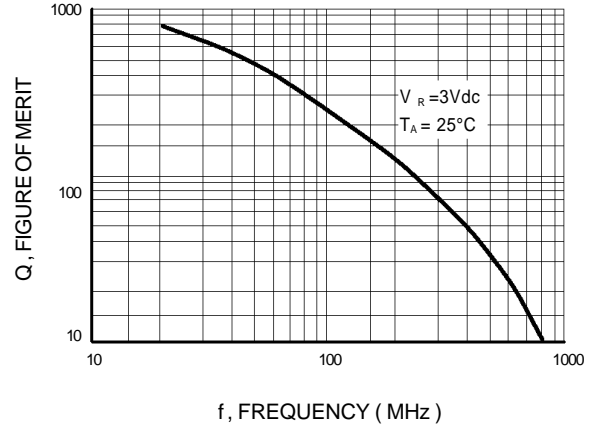


Figure 2. Figure of Merit

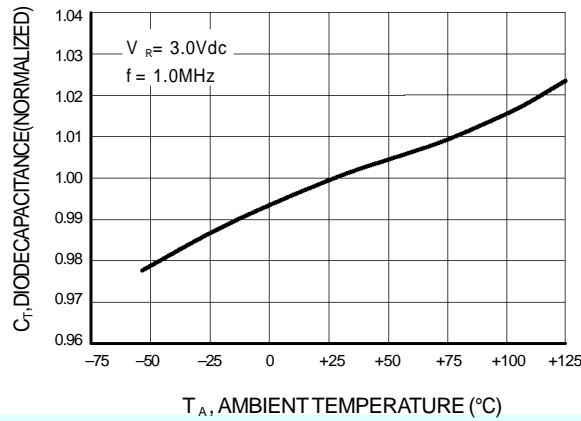


Figure 3. Diode Capacitance

