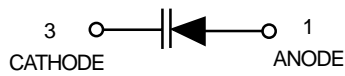


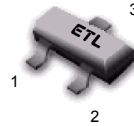
# Silicon Tuning Diode

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 $25^\circ\text{C}$		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

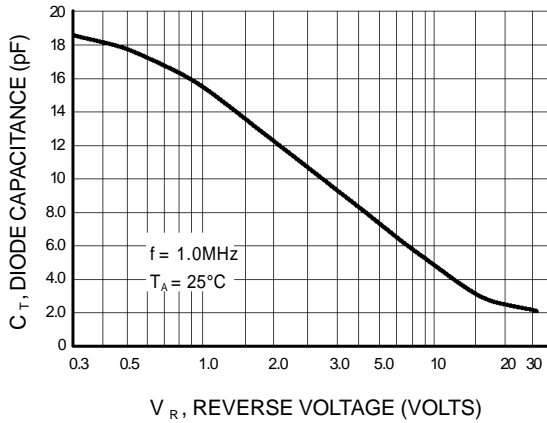


Figure 1. Diode Capacitance

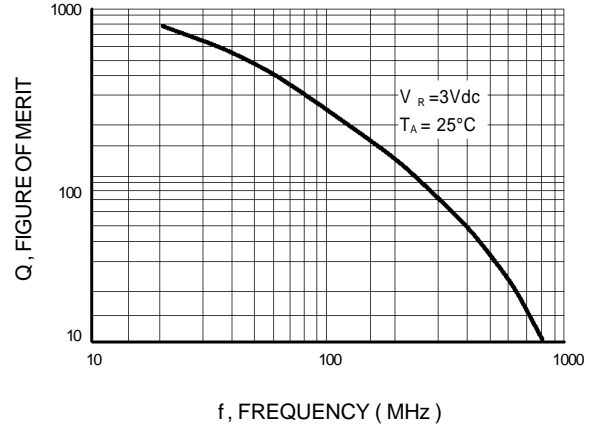


Figure 2. Figure of Merit

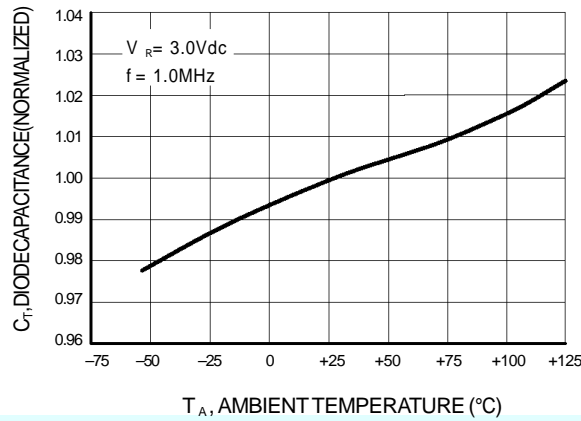


Figure 3. Diode Capacitance

