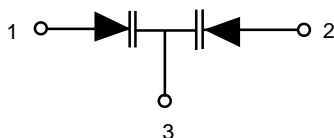


# Silicon Tuning Diode

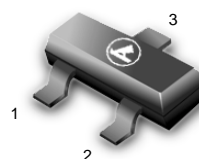
This device is designed for FM tuning, general frequency control and tuning, or any top-of-the-line application requiring back-to-back diode configuration for minimum signal distortion and detuning. This device is supplied in the SOT-23 plastic package for high volume, pick and place assembly requirements.

- High Figure of Merit—  $Q = 150$  (Typ) @  $V_R = 2.0$  Vdc,  $f = 100$  MHz
- Guaranteed Capacitance Range
- Dual Diodes – Save Space and Reduce Cost
- Surface Mount Package
- Available in 8 mm Tape and Reel
- Monolithic Chip Provides Improved Matching – Guaranteed  $\pm 1.0\%$  (Max) Over Specified Tuning Range



**MMBV432LT1**

**DUAL  
VOLTAGE VARIABLE  
CAPACITANCE DIODE**



**CASE 318-08, STYLE 9  
SOT- 23 (TO-236AB)**

## MAXIMUM RATINGS(EACH DIODE)

Rating	Symbol	Value	Unit
Reverse Voltage	$V_R$	14	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 +125	$^\circ\text{C}$

## DEVICE MARKING

MMBV432LT1=M4B

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

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage ( $I_R=10\mu\text{Adc}$ )	$V_{(BR)R}$	14	—	—	Vdc
Reverse Voltage Leakage Current ( $V_R=9.0\text{Vdc}$ )	$I_R$	—	—	100	nAdc
Diode Capacitance ( $V_R=2.0$ Vdc, $f=1.0\text{MHz}$ )	$C_T$	43	—	48.1	pF
Capacitance Ratio $C_2/C_8$ ( $f=1.0\text{MHz}$ )	$C_R$	1.5	—	2.0	—
Figure of Merit ( $V_R=2.0$ Vdc, $f=100\text{MHz}$ )	$Q$	100	150	—	—

## MMBV432LT1

### TYPICAL CHARACTERISTICS

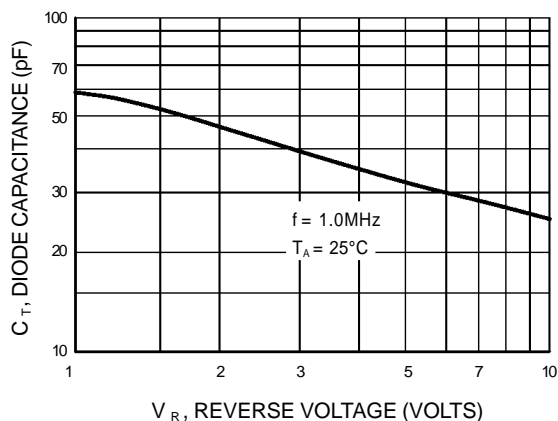


Figure 1. Diode Capacitance

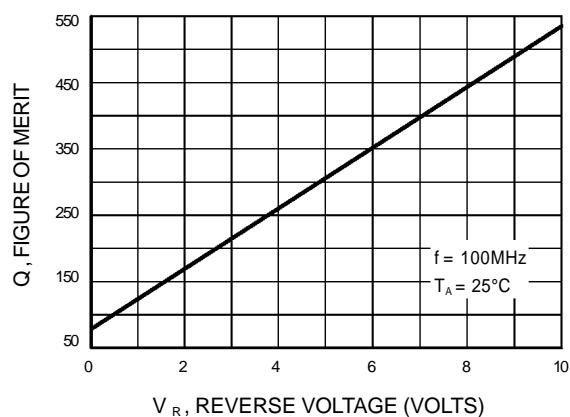


Figure 2. Figure of Merit versus Voltage

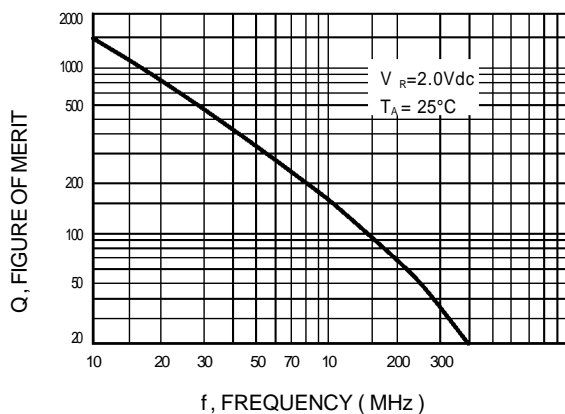


Figure 3. Figure of Merit versus Frequency

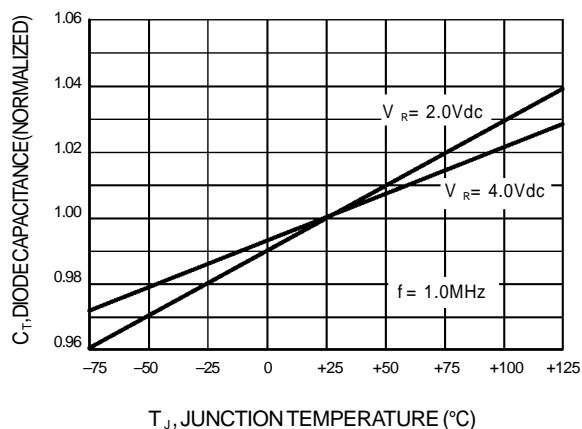


Figure 4. Diode Capacitance versus Temperature

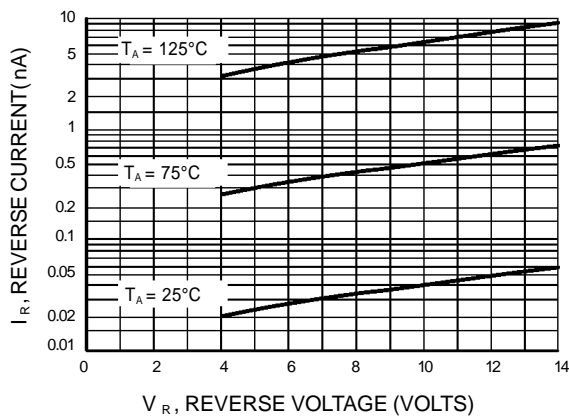


Figure 5. Reverse Current versus Reverse Voltage

This datasheet has been download from:

[www.datasheetcatalog.com](http://www.datasheetcatalog.com)

Datasheets for electronics components.