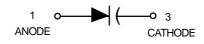


Silicon Tuning Diode

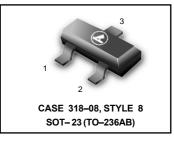
This device is designed for 900 MHz frequency control and tuning applications. It provides solid–state reliability in replacement of mechanical tuning methods.

- Controlled and Uniform Tuning Ratio
- Available in Surface Mount Package
- Available in 8 mm Tape and Reel



MMBV809LT1

4.5-6.1 pF VOLTAGE VARIABLE CAPACITANCE DIODES



MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Reverse Voltage	V _R	20	Vdc
Forward Current	I _F	20	mAdc
Device Dissipation ⁽¹⁾ @T _A = 25°C	P _D	225	mW
Derate above 25°C		1.8	mW/°C
Junction Temperature	ΤJ	+125	C°
Storage Temperature Range	T _{stg}	-55 to +125	C°

DEVICE MARKING

MMBV809LT1=5K								
ELECTRICAL CHARACTERISTICS(T _A =25°C unless otherwise noted)								
Characteristic-All Types	Symbol	Min	Max	Unit				
Reverse Breakdown Voltage	V _{(BR)R}	20	_	Vdc				
(I _R =10μAdc)	V (BR)R	20						
Reverse Voltage Leakage Current	1		50	nAdc				
(V _R =15Vdc)	I _R		50	IIAde				

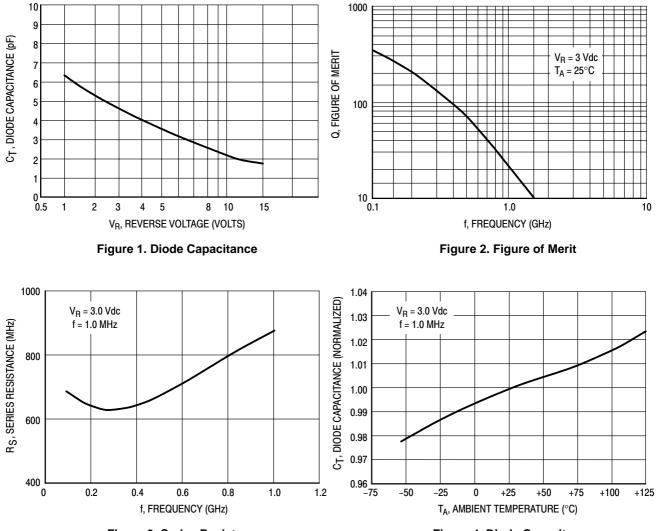
	C _T Diode Capacitance V _R =2.0Vdc,f=1.0MHz pF		Q,Figure of Merit V _R =3.0Vdc f=500MHz	C _R ,Capacitance Ratio C ₂ /C ₈ f=1.0MHz(2)		
Device Type	Min	Тур	Max	Тур	Min	Max
MMBV809LT1	4.5	5.3	6.1	75	1.8	2.6

1. FR-5 Board 1.0 x 0.75 x 0.62 in.

2. $C_{\scriptscriptstyle R}$ is the ratio of $C_{\scriptscriptstyle t}$ measured at 2.0 Vdc divided by $C_{\scriptscriptstyle t}$ measured at 8.0 vdc



MMBV809LT1



TYPICAL CHARACTERISTICS

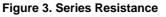


Figure 4. Diode Capacitance