

## Dual Hot-Carrier Diodes

## MMBD452

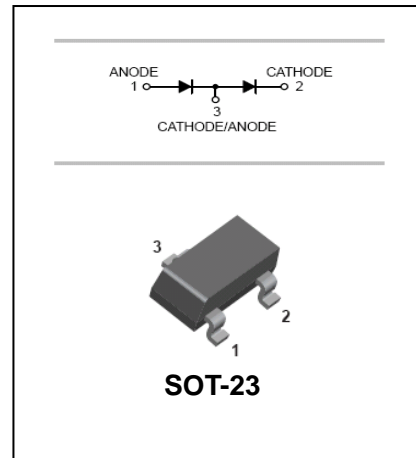
### FEATURES

- Very low capacitance.
- Extremely low minority carrier lifetime. **Lead-free**
- Low reverse leakage.
- Power dissipation  $P_d=225\text{mW}$ .



### APPLICATIONS

- Designed primarily for UHF and VHF detector applications.



### ORDERING INFORMATION

Type No.	Marking	Package Code
MMBD452	5N	SOT-23

### MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Limits	Unit
Continuous reverse voltage	$V_R$	30	V
Power Dissipation	$P_d$	225	mW
Operating junction temperature range	$T_J$	-55 to +125	$^\circ\text{C}$
Junction and storage temperature	$T_{STG}$	-55 to +150	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Breakdown Voltage	$V_{(BR)}$	30			V	$I_R=10\mu\text{A}$
Forward voltage	$V_F$		0.38 0.52	0.45 0.6	V	$I_F=1.0\text{mA}$ $I_F=10\text{mA}$
Reverse current	$I_R$		13	200	nA	$V_R=25\text{V}$
Total Capacitance	$C_T$		0.9	1.5	pF	$V_R=15\text{V}, f=1\text{MHz}$

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TYPICAL CHARACTERISTICS @  $T_a=25^\circ\text{C}$  unless otherwise specified

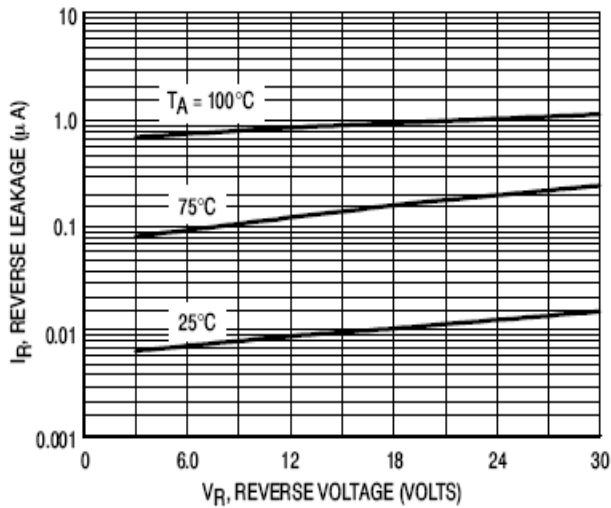


Figure 3. Reverse Leakage

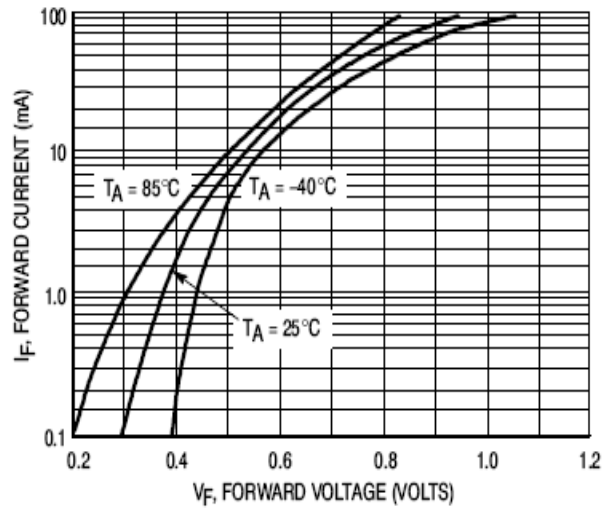


Figure 4. Forward Voltage

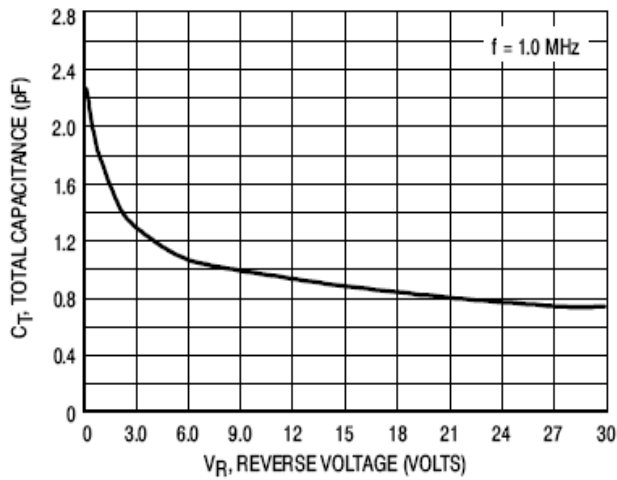


Figure 1. Total Capacitance

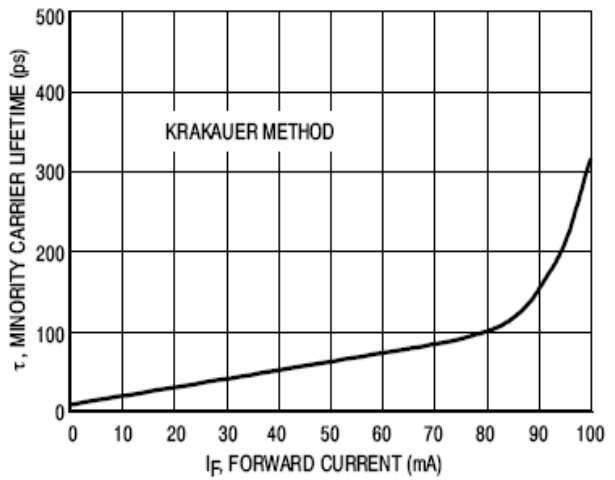


Figure 2. Minority Carrier Lifetime

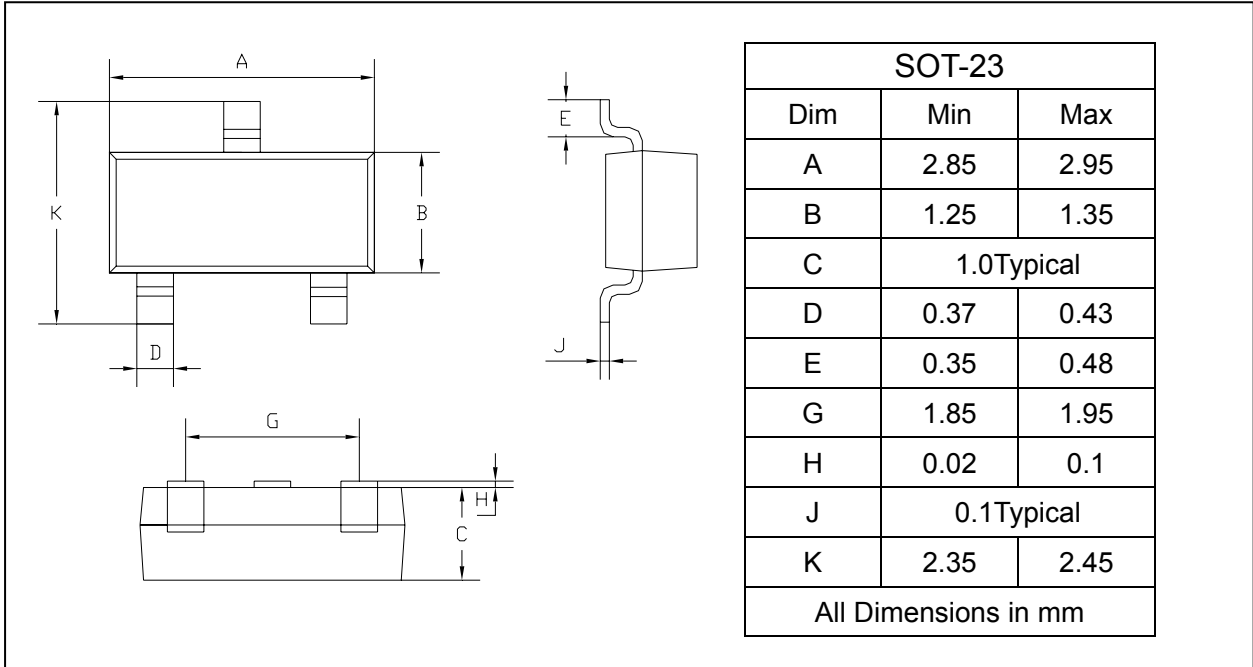
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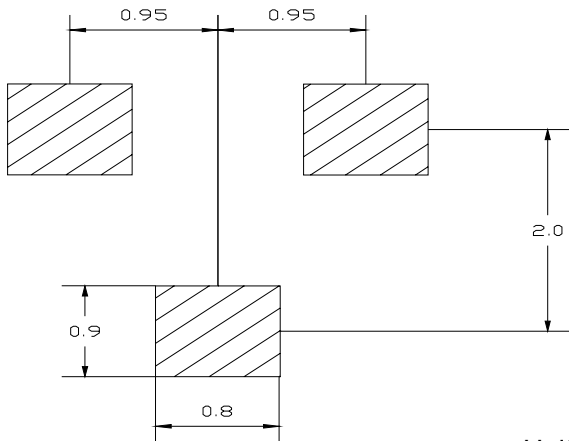
### PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



### SOLDERING FOOTPRINT



Unit : mm

### PACKAGE INFORMATION

Device	Package	Shipping
MMBD452	SOT-23	3000/Tape&Reel