

Dual Hot-Carrier Diodes

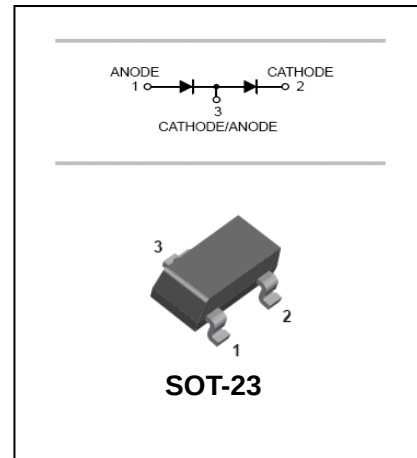
MMBD452

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

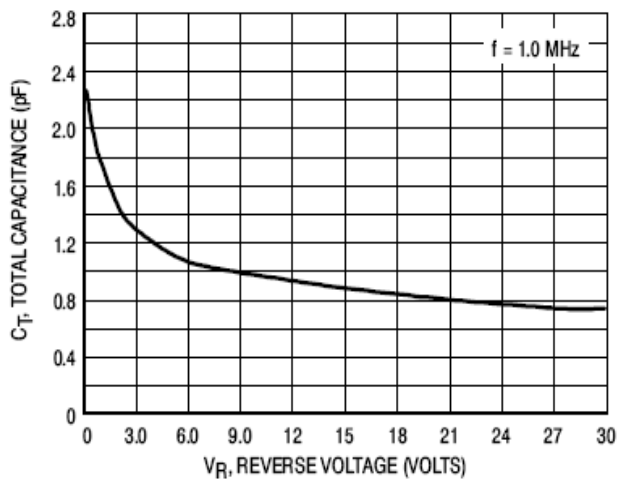


Figure 1. Total Capacitance

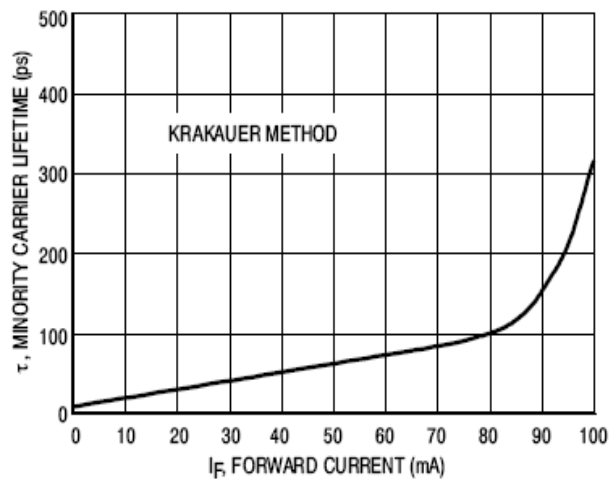


Figure 2. Minority Carrier Lifetime

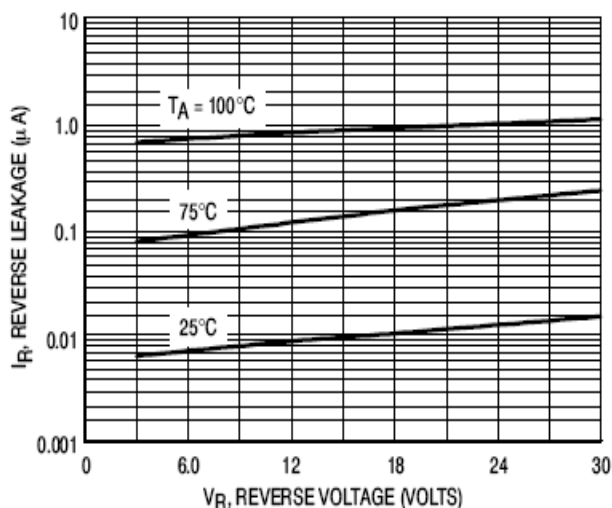


Figure 3. Reverse Leakage

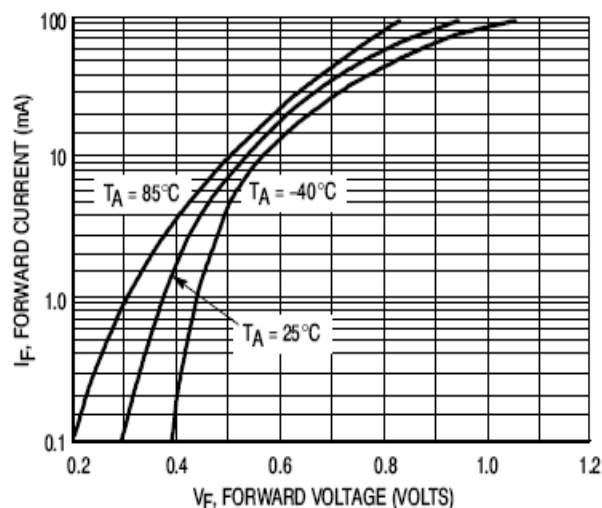


Figure 4. Forward Voltage

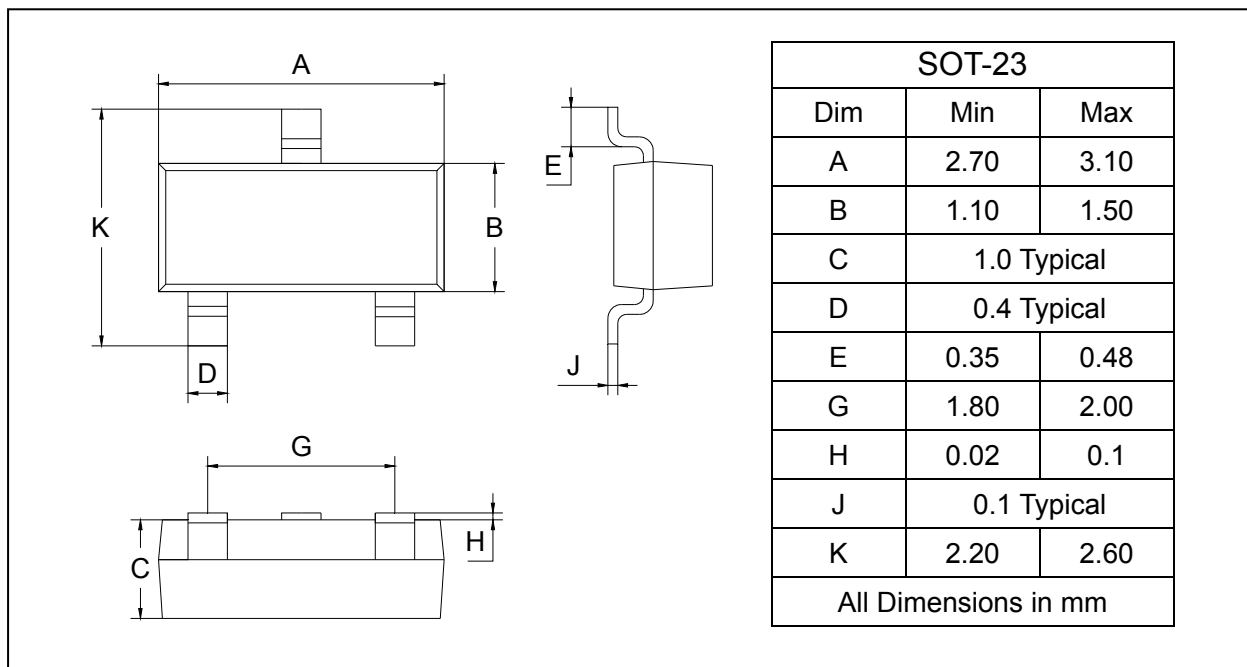
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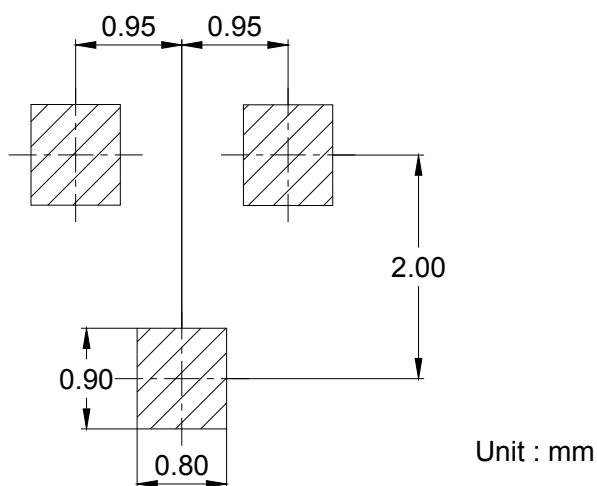
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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