

Schottky Barrier Diode

MMDL301

FEATURES

- Low reverse leakage— $I_R=13\text{nA(Typ.)}$.
- Very Low Capacitance—less than 1.5pF @15V .
- Extremely Low minority carrier lifetime— 15ps(Typ.) .
- Pb-Free package is available.



Lead-free

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CATHODE ANODE



SOD-323

APPLICATIONS

- For high-efficiency UHF and VHF detector applications.

ORDERING INFORMATION

Type No.	Marking	Package Code
MMDL301	4T	SOD-323

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

Parameter	Symbol	Limits	Unit
DC reverse voltage	V_R	30	V
Power Dissipation	P_d	200	mW
Thermal resistance, junction to ambient air	$R_{\theta JA}$	635	$^\circ\text{C/W}$
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55-150	$^\circ\text{C}$

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

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

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

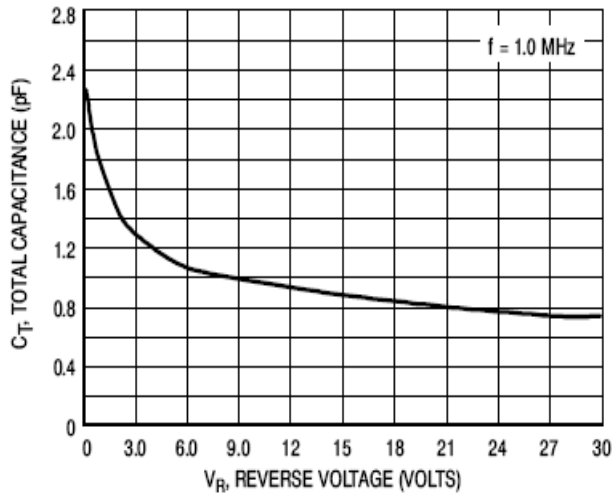


Figure 1. Total Capacitance

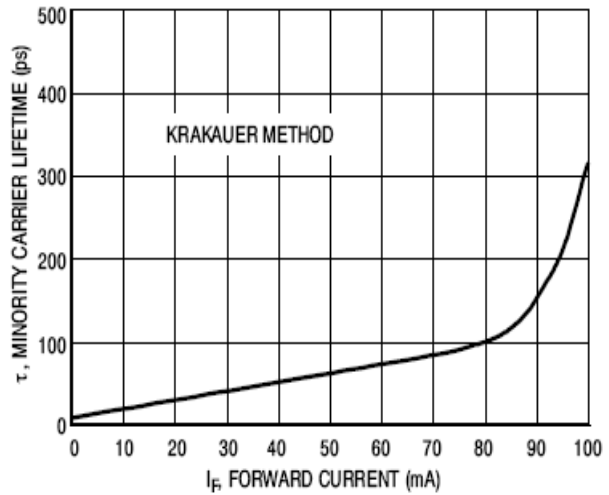


Figure 2. Minority Carrier Lifetime

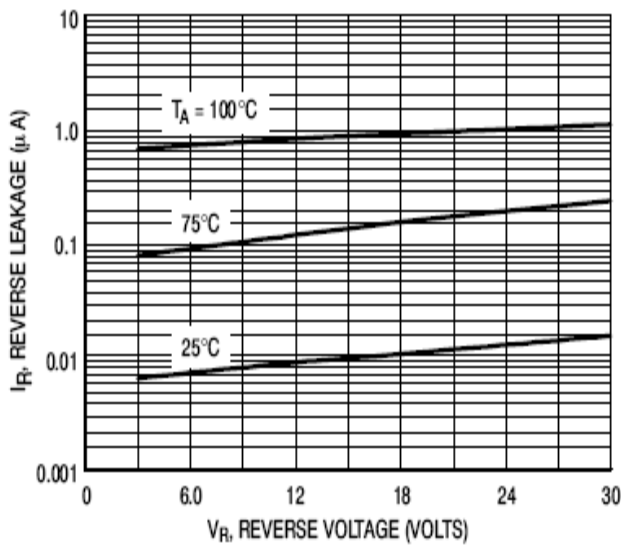


Figure 3. Reverse Leakage

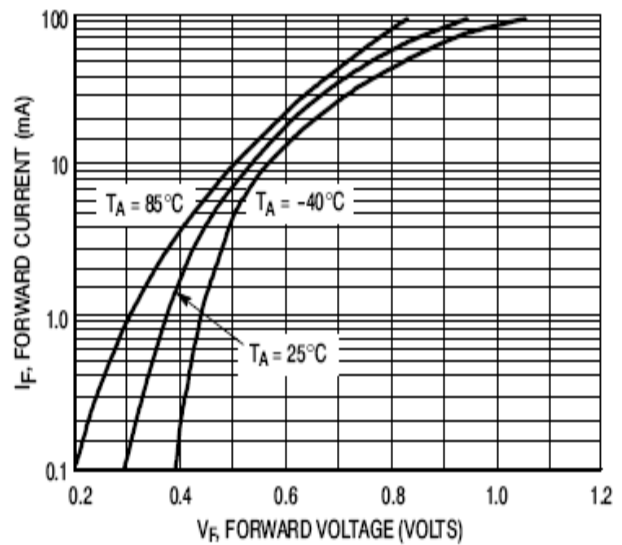


Figure 4. Forward Voltage

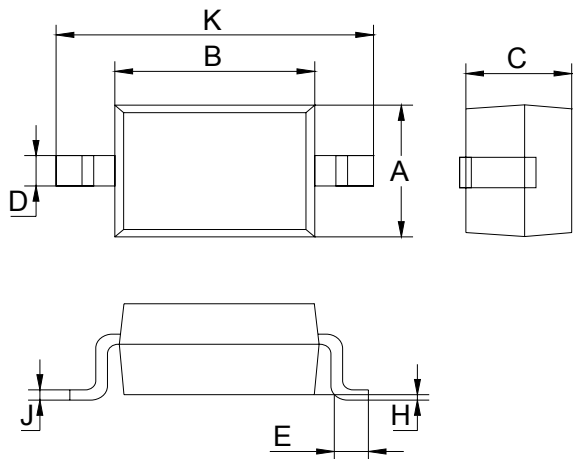
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PACKAGE OUTLINE

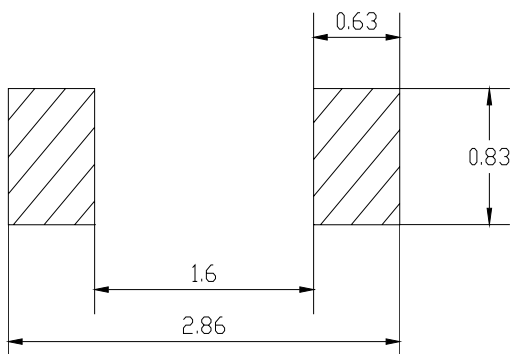
Plastic surface mounted package

SOD-323



SOD-323		
Dim	Min	Max
A	1.275	1.325
B	1.675	1.725
C	0.9 Typical	
D	0.25	0.35
E	0.27	0.37
H	0.02	0.1
J	0.1 Typical	
K	2.6	2.7
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
MMDL301	SOD-323	3000/Tape&Reel