

Schottky

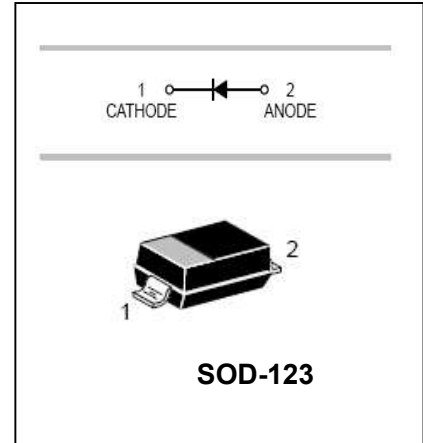
Barrier

Diode

MMSD301/MMSD701

FEATURES

- Extremely low minority carrier lifetime.
- Very low capacitance.
- Low reverse leakage.
- Pb-Free packages are available.



APPLICATIONS

- Schottky barrier diodes.

ORDERING INFORMATION

Type No.	Marking	Package Code
MMSD301	XT	SOD-123
MMSD701	XH	SOD-123

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Repetitive peak reverse voltage MMSD301 MMSD701	V_R	30 70	V
Forward Continuous Current	I_F	200	mA
Power Dissipation	P_d	225	mW
Junction temperature	T_j	-55to +125	°C
Storage temperature range	T_{STG}	-65 to +150	°C

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage MMSD301 MMSD701	$V_{(BR)R}$	30 70			V	$I_R=10\mu A$
Forward Voltage MMSD301 MMSD701	V_F		0.38 0.52 0.42 0.7	0.45 0.6 0.5 1.0	V	$I_F=1.0mA$ $I_F=10mA$ $I_F=1.0mA$ $I_F=10mA$
Reverse Current MMSD301 MMSD701	I_R		13 9.0	200 200	nA nA	$V_R=25V$ $V_R=35V$
Total Capacitance MMSD301 MMSD701	C_D		0.9 0.5	1.5 1.0	pF	$V_R=15\text{ Volts}, f=1.0MHz$ $V_R=20\text{ Volts}, f=1.0MHz$

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

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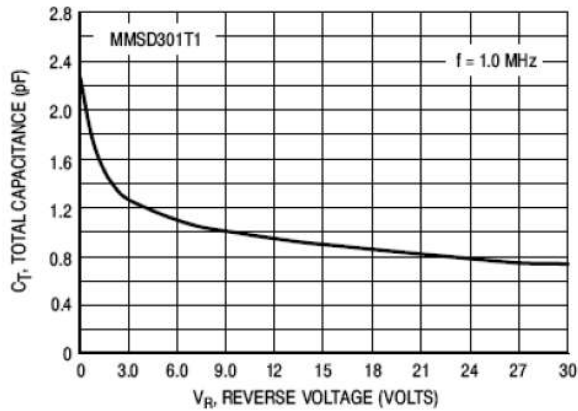


Figure 1. Total Capacitance

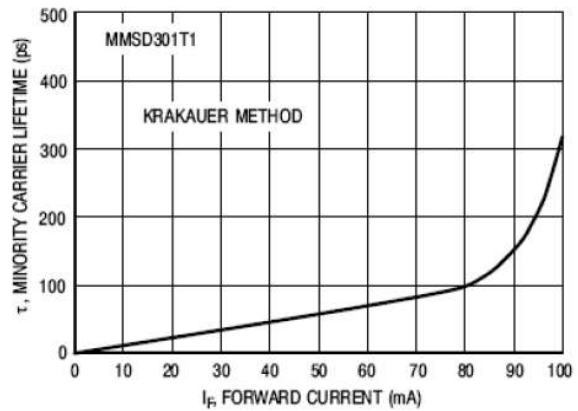


Figure 2. Minority Carrier Lifetime

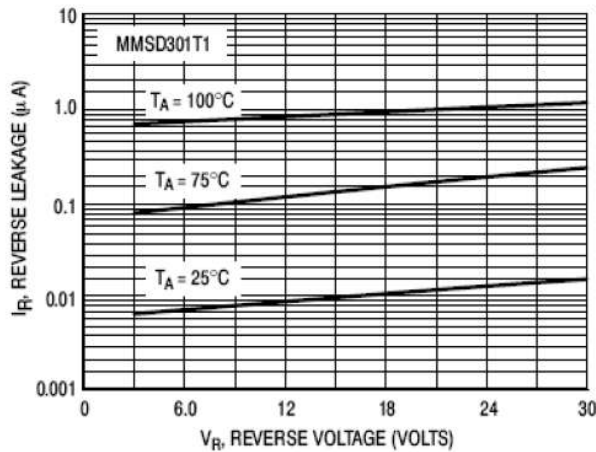


Figure 3. Reverse Leakage

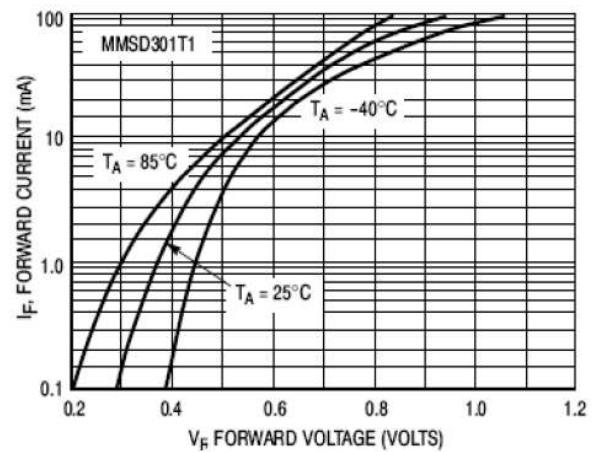


Figure 4. Forward Voltage

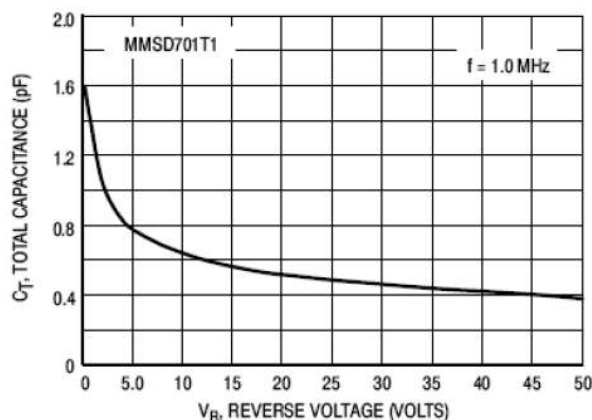


Figure 5. Total Capacitance

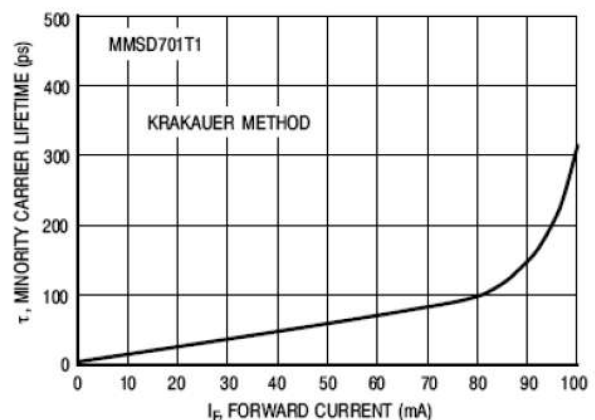
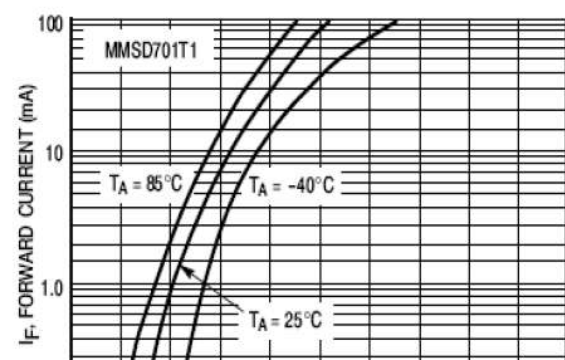
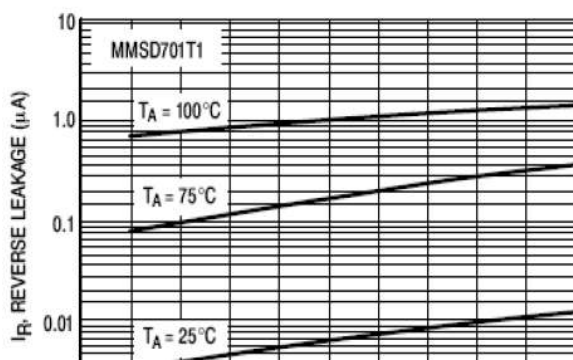


Figure 6. Minority Carrier Lifetime



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PACKAGE OUTLINE

Plastic surface mounted package

SOD-123

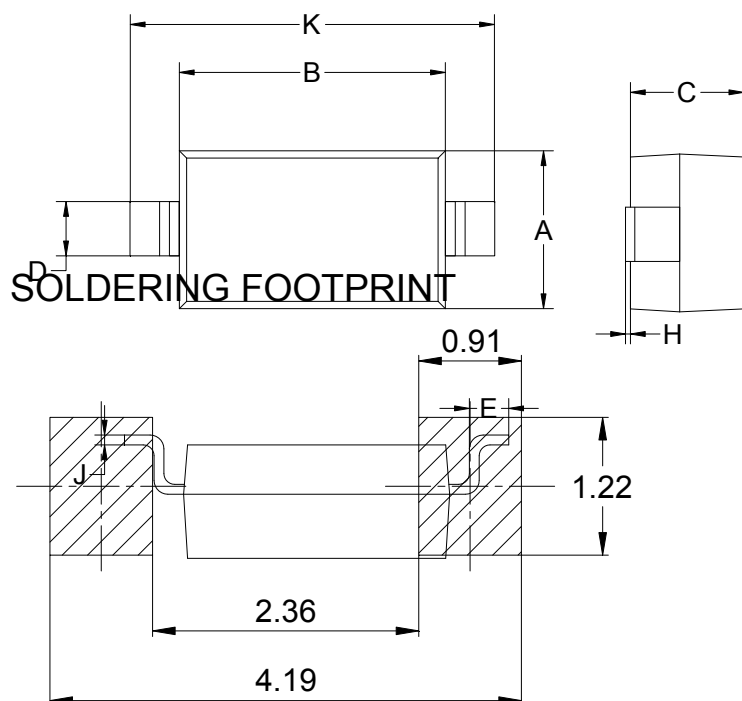
SOD-123		
Dim	Min	Max
A	1.45	1.75
B	2.55	2.85
C	1.15 Typical	
D	0.55 Typical	
E	0.25	0.45
H	0.02	0.10

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MMSD301/MMSD701



J	0.1 Typical	
K	3.55	3.85
All Dimensions in mm		

Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
MMSD301/MMSD701	SOD-123	3000/Tape&Reel