

## Schottky Barrier Diode

## MMSD301/MMSD701

### FEATURES

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



1 CATHODE 2 ANODE



SOD-123

### 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

Parameter	Symbol	Limits	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	$T_{stg}$	-65to +150	°C

### ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

## Schottky Barrier Diode

## MMSD301/MMSD701

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit	
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=10\mu A$	30			V	
MMSD301 MMSD701			70				
Forward voltage	$V_F$	$I_F=1.0mA$		0.38	0.45	V	
MMSD301		$I_F=10mA$		0.52	0.6		
		MMSD701	$I_F=1.0mA$		0.42		0.5
			$I_F=10mA$		0.7		1.0
Reverse current	$I_R$	$V_R=25V$		13	200	nA	
MMSD301 MMSD701		$V_R=35V$		9.0	200	nA	
Diode Capacitance	$C_d$	$V_R=0V, f=1MHz$		0.9	1.5	pF	
MMSD301 MMSD701				0.5	1.0		

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

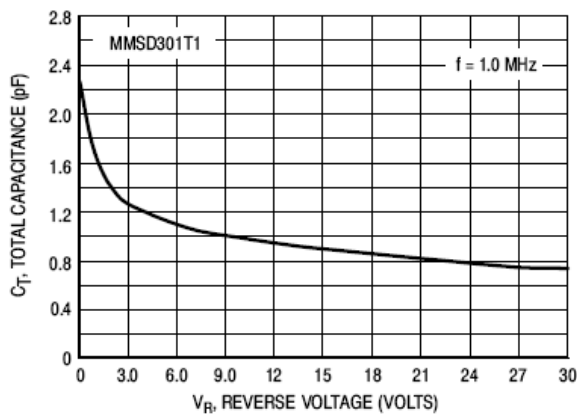


Figure 1. Total Capacitance

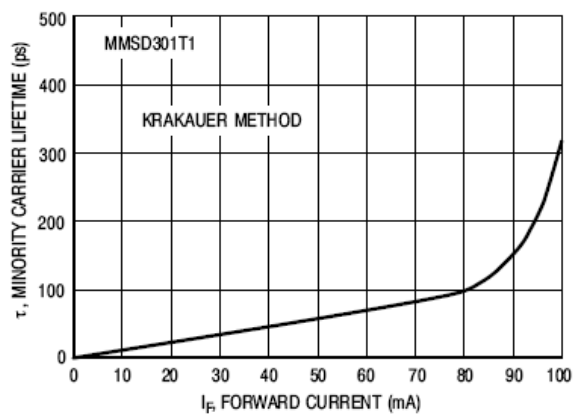


Figure 2. Minority Carrier Lifetime

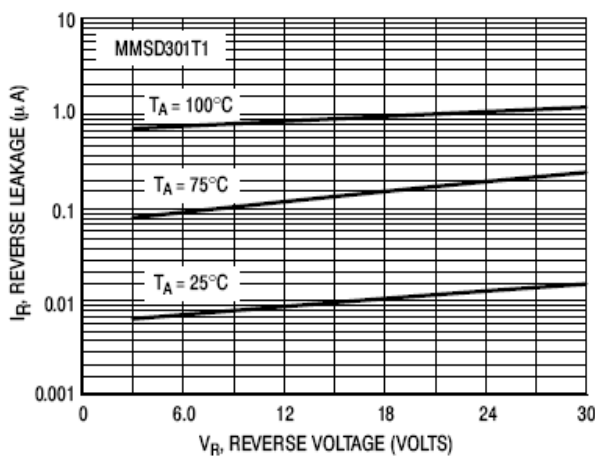


Figure 3. Reverse Leakage

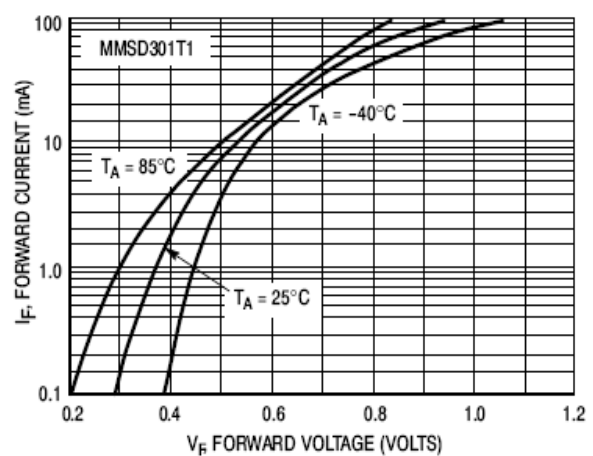


Figure 4. Forward Voltage

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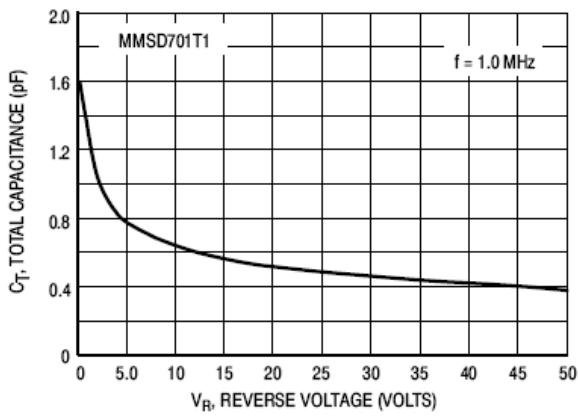


Figure 5. Total Capacitance

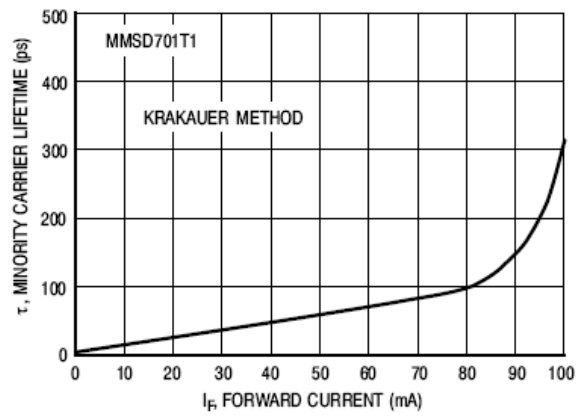


Figure 6. Minority Carrier Lifetime

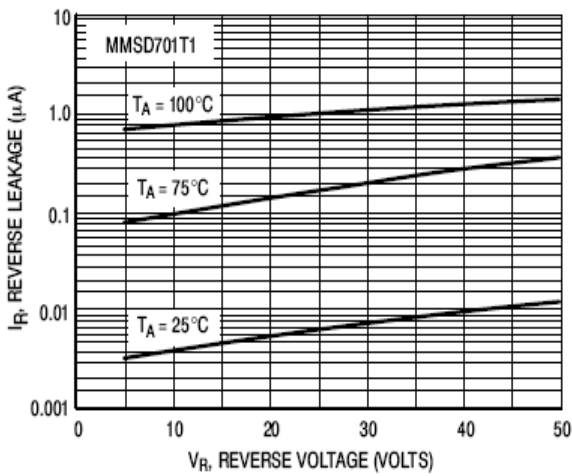


Figure 7. Reverse Leakage

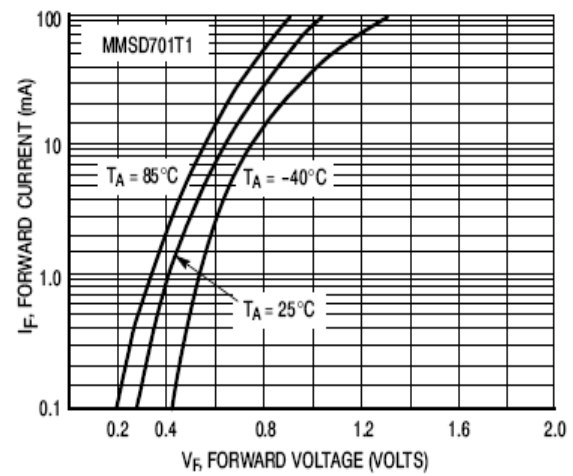


Figure 8. Forward Voltage

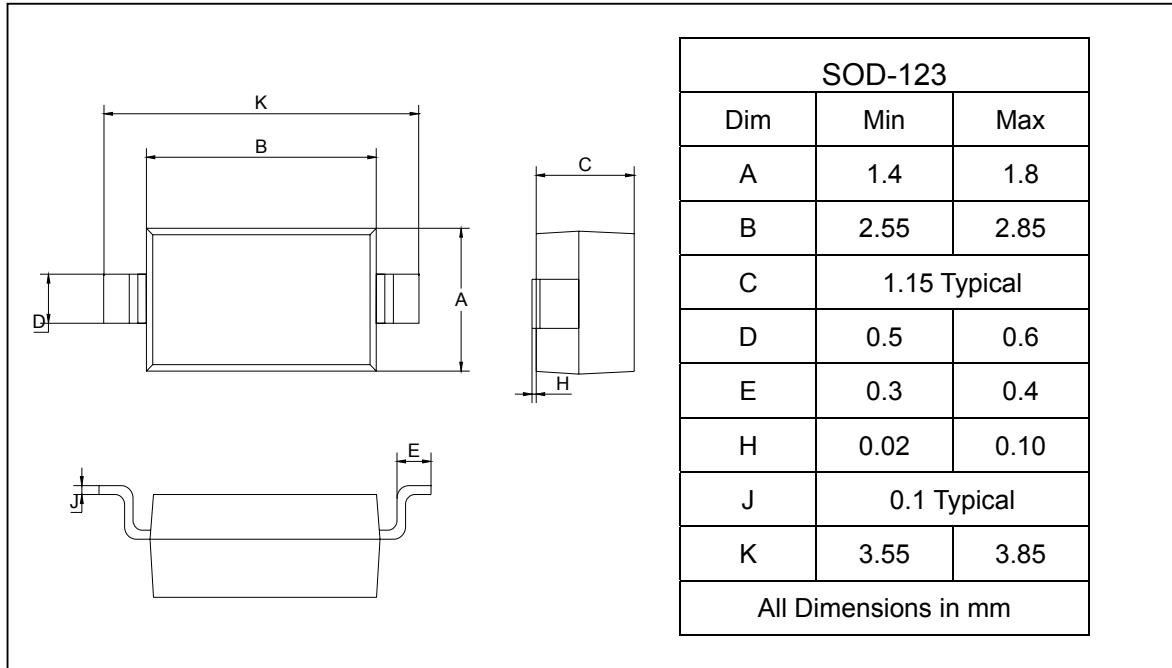
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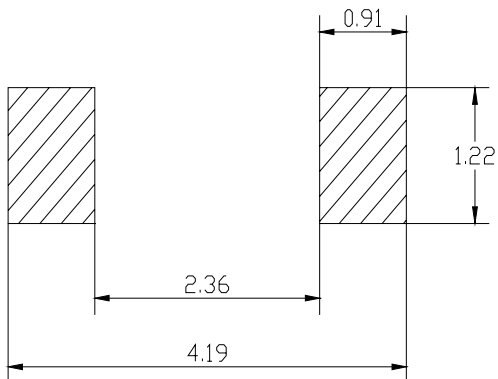
PACKAGE OUTLINE

Plastic surface mounted package

SOD-123



### SOLDERING FOOTPRINT



Unit : mm

### PACKAGE INFORMATION

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