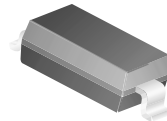


# MMSD3070

## Small Signal Diode



**SOD123**

COLOR BAND DENOTES CATHODE  
TOP MARKING: 33

### Absolute Maximum Ratings \* $T_a = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
$V_{RRM}$	Maximum Repetitive Reverse Voltage	200	V
$I_{F(AV)}$	Average Rectified Forward Current	200	mA
$I_{FSM}$	Non-repetitive Peak Forward Surge Current		
	Pulse Width = 1.0 second	1.0	A
	Pulse Width = 1.0 microsecond	2.0	A
$T_{STG}$	Storage Temperature Range	-55 to +150	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	150	$^\circ\text{C}$

\* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Thermal Characteristics

Symbol	Parameter	Value	Units
$P_D$	Power Dissipation	400	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	312	$^\circ\text{C/W}$

### Electrical Characteristics $T_a = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Conditions	Min.	Max.	Units
$V_R$	Breakdown Voltage	$I_R = 100\mu\text{A}$	200		V
$V_F$	Forward Voltage	$I_F = 100\text{mA}$		1.0	V
$I_R$	Reverse Leakage	$V_R = 175\text{V}$		100	nA
		$V_R = 175\text{V}, T_A = 150^\circ\text{C}$		100	$\mu\text{A}$
$C_T$	Total Capacitance	$V_R = 0, f = 1.0\text{MHz}$		5.0	pF
$t_{rr}$	Reverse Recovery Time	$I_F = I_R = 30\text{mA},$ $I_{RR} = 1.0\text{mA}, R_L = 100\Omega$		50	ns

Typical Performance Characteristics

Figure 1. Forward Voltage vs Forward Current

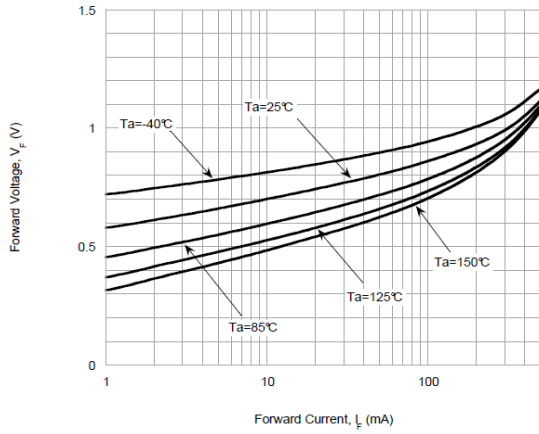


Figure 2. Reverse Current vs Reverse Voltage

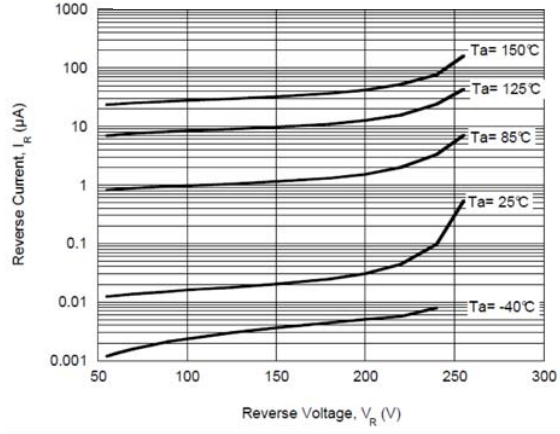
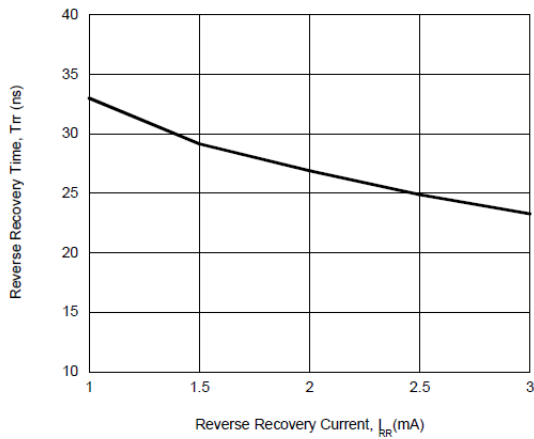


Figure 3. Reverse Recovery Time vs Reverse Recovery Current





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| ESBC™                    | MicroPak™                           | SMART START™                          |  |
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