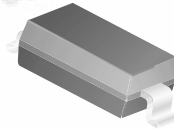


FAIRCHILD
SEMICONDUCTOR®

June 2005

MMSD4448

Small Signal Diode



SOD123
Color Band Denotes Cathode
Top Marking: 10

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

Symbol	Parameter	Value	Unit
V_{RRM}	Maximum Repetitive Reverse Voltage	100	V
$I_{F(AV)}$	Average Rectified Forward Current	200	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond	1.0	A
		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 the diode may be impaired.

Thermal Characteristics

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

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

Symbol	Parameter	Conditions	Min.	Max.	Units
V_R	Breakdown Voltage	$I_R = 5.0\mu\text{A}$ $I_R = 100\mu\text{A}$	75 100		V
V_F	Forward Voltage	$I_F = 5\text{mA}$	0.62	0.72	V
		$I_F = 100\text{mA}$		1.0	V
I_R	Reverse Leakage	$V_R = 20\text{V}$		25	nA
		$V_R = 20\text{V}, T_A = 150^\circ\text{C}$		50	μA
		$V_R = 75\text{V}$		5.0	μA
C_T	Total Capacitance	$V_R = 0, f = 1.0\text{MHz}$		2.0	pF
t_{rr}	Reverse Recovery Time	$I_F = 10\text{mA}, V_R = 6.0\text{V},$ $I_{rr} = 1.0\text{mA}, R_L = 100\Omega$		4.0	ns
$V_{F(\text{peak})}$	Peak Forward Recovery Voltage	$I_F = 50\text{mA}, pw = 0.1\mu\text{s}$ rep rate: 5 to 10KHz		2.5	V



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DOMETM	GTO™	MicroPak™	QFET®	SuperSOT™-8
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FACT Quiet Series™		OCXPro™	RapidConnect™	UHC™
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Programmable Active Droop™		PACMAN™	SMART START™	VCX™

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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

PRODUCT STATUS DEFINITIONS

Definition of Terms

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