

SOT23 SILICON PLANAR HIGH SPEED SWITCHING DIODE

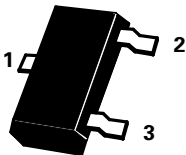
ISSUE 2 - OCTOBER 1995

FMMD914

DIODE PIN CONNECTION



PARTMARKING DETAIL – 5D



SOT23

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Working Peak Reverse Voltage	V_{RWM}	75	V
Average Rectified Forward Current at $T_{amb}=25^{\circ}\text{C}$	$I_{F(AV)}$	75	mA
Repetitive Peak Forward Current	I_{FRM}	225	mA
Power Dissipation at $T_{amb} = 25^{\circ}\text{C}$	P_{tot}	330	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}\text{C}$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Reverse Breakdown Voltage	V_{BR}	75		V	$I_R=100\mu\text{A}$
Forward Voltage	V_F		1	V	$I_F=10\text{mA}$
Static Reverse Current	I_R		25 50	nA μA	$V_R=20\text{V}$ $V_R=20\text{V}, T_{amb}=150^{\circ}\text{C}$
Reverse Recovery Time	t_{rr}		8	ns	$I_F=I_{RM}=10\text{mA}, I_{RR}=1\text{mA}$ $R_L=100\Omega$
			4	ns	$I_F=10\text{mA}, I_{RR}=1\text{mA}, V_R=6\text{V}$ $R_L=100\Omega$
Total Capacitance	C_T		4	pF	$V_R=0, f=1\text{MHz}$
Forward Recovery Voltage	$V_{FM(REC)}$		2.5	V	$I_F=50\text{mA}, R_L=50\Omega$
Rectification Efficiency	η_r	45		%	$V_R=2\text{V}, R_L=5\text{k}\Omega, C_L=20\text{pF}$ $Z_{source}=50\Omega, f=100\text{MHz}$

Spice parameter data is available upon request for this device