

MMSD4148

PRV : 100 Volts
Io : 200 mA

FEATURES :

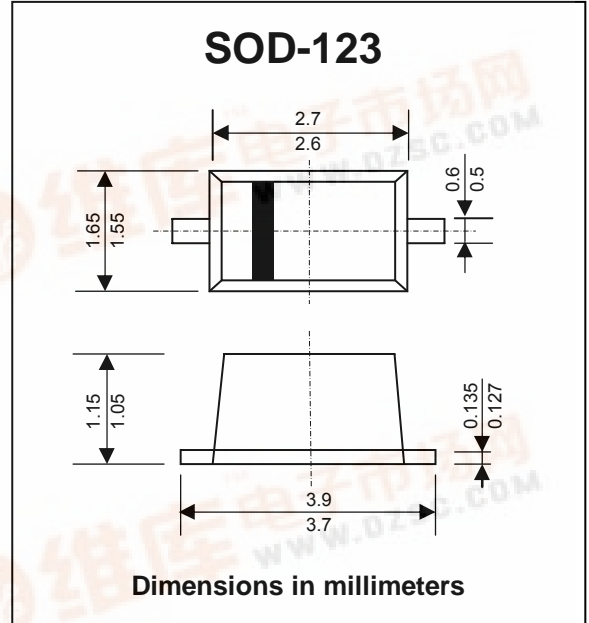
- * High breakdown voltage
- * Fast speed switching time
- * SOD-123 Surface mount package ideally suited
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : SOD-123 plastic Case
- * Weight : approx. 0.01 g

SWITCHING DIODE

SOD-123



MAXIMUM RATINGS AND THERMAL CHARACTERISTICS (Ta = 25 °C unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Continuous Reverse Voltage	V_R	100	V
Maximum Peak Forward Current	I_F	200	mA
Maximum Peak Forward Surge Current	I_{FSM}	500	mA
Total Power Dissipation, FR-5 Board Ta = 25 °C (Note 1)	P_D	425	mW
Derate above 25 °C		3.4	mW/°C
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	290	°C/W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (Ta = 25 °C unless otherwise noted)

Parameter	Test Condition	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage	$I_R = 100 \mu A_{dc}$	$V_{(BR)}$	100	-	V
Forward Voltage	$I_F = 10 mA_{dc}$	V_F	-	1	V
Reverse Current	$V_R = 20 V$	I_R	-	25	nA
	$V_R = 75 V$		-	5.0	μA
Diode Capacitance	$V_R = 0 V, f = 1 MHz$	C_T	-	4.0	pF
Reverse Recovery Time	$I_F = I_R = 10 mA_{dc}$	T_{rr}	-	4.0	ns

Note :

(1) FR-5 = 1.0 oz Cu, 1.0 in² pad

RATINGS AND CHARACTERISTIC CURVES (MMSD4148)

FIG.1 - POWER DERATING CURVE

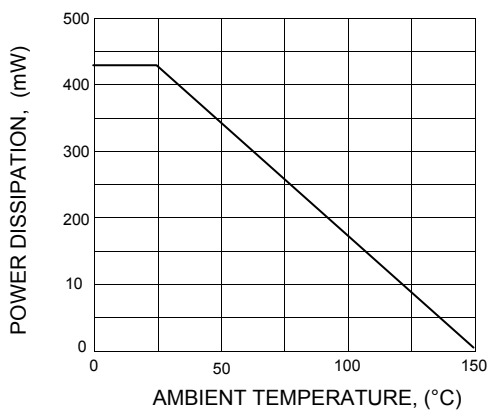


FIG.2 - TYPE CAPACITANCE VS. REVERSE VOLTAGE

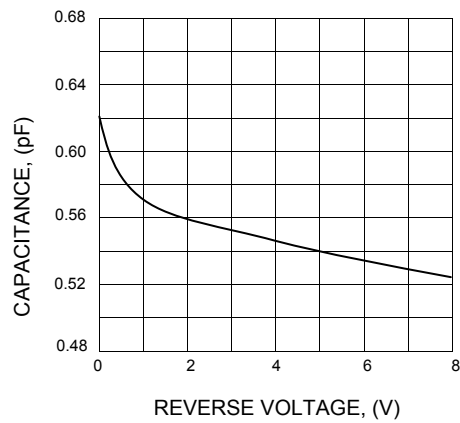


FIG.3 - FORWARD CHARACTERISTICS

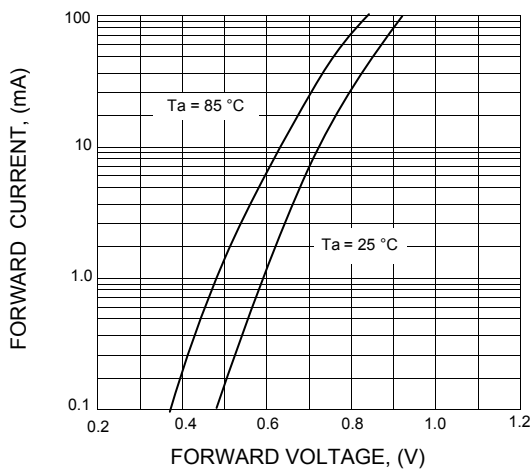


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

