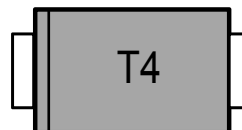


FEATURES

Fast Switching Speed
Surface Mount Package Ideally Suited for Automatic Insertion
For General Purpose Switching Applications
High Conductance

MECHANICAL DATA

- * Case: Molded plastic
- * Lead: Axial leads, solderable per MIL-STD-750, method 2026
- * Polarity: Polarity symbols marked on case
- * Marking: T4



VOLTAGE RANGE

100.0 Volts

CURRENT

0.15 Ampere

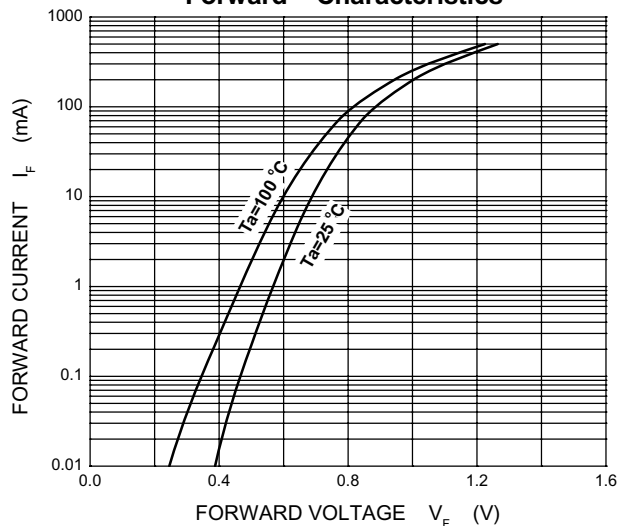
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

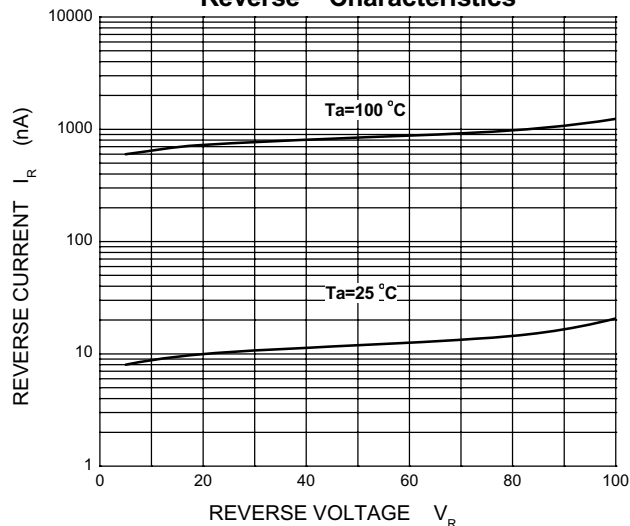
TYPE NUMBER	MMSD4148	UNITS
Maximum Recurrent Peak Reverse Voltage	100	V
Maximum RMS Voltage	70	V
Maximum DC Blocking Voltage	100	V
Maximum Average Forward Rectified Current See Fig. 1	0.15	A
Peak Forward Surge Current @ $t=1.0\mu s$	4.0	A
@ $t=1.0s$	1.0	A
Leakage current @ $V_R=20V$	25.0	nA
@ $V_R=75V$	5.0	μA
@ $V_R=20V$ $T_J=150^\circ C$	50.0	μA
Maximum Instantaneous Forward Voltage at 0.01A	0.85	V
at 0.05A	1.0	
at 0.15A	1.25	
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a=25^\circ C$	1	μA
Typical Junction Capacitance ($V_R=0V$ $f=1MHz$)	1.15	pF
Total Power Dissipation	410	mW
Maximum Reverse Recovery Time (TRR typical)	4	ns
Operating Temperature Range T_J	-55 to +150	$^\circ C$
Storage Temperature Range T_{STG}	-55 to +150	$^\circ C$

RATING AND CHARACTERISTIC CURVES

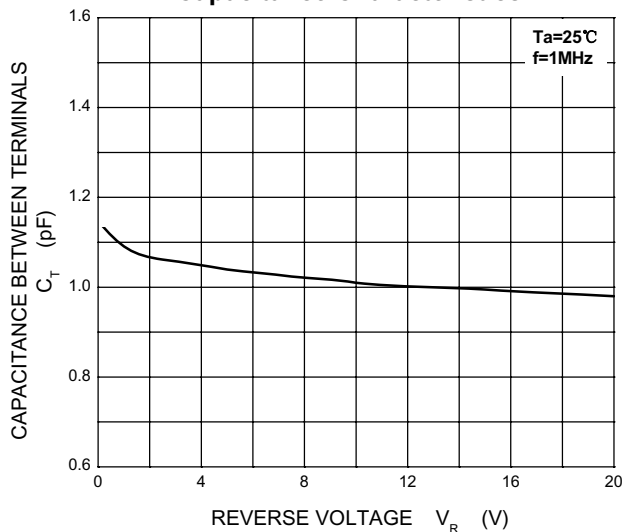
Forward Characteristics



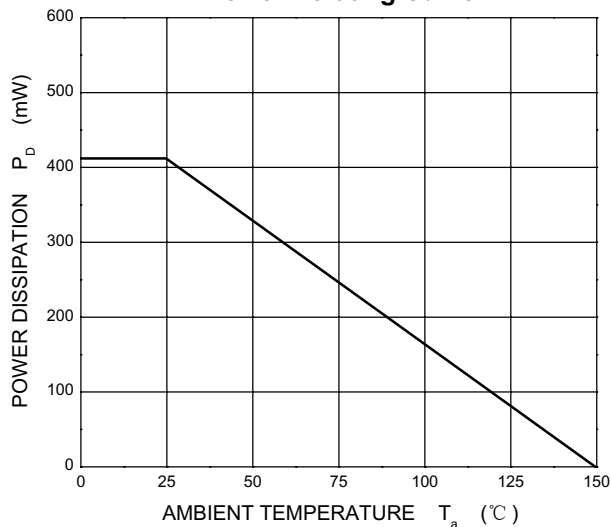
Reverse Characteristics



Capacitance Characteristics

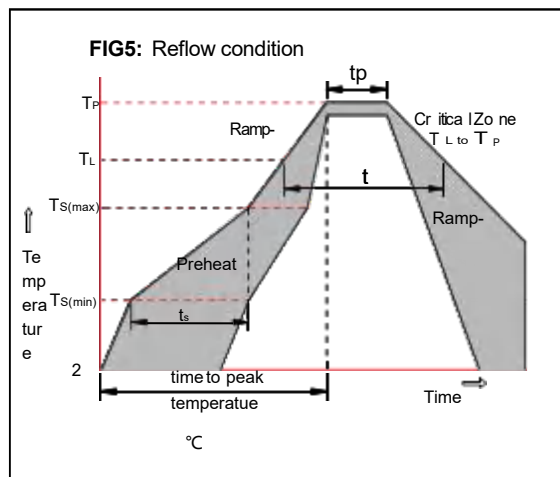


Power Derating Curve



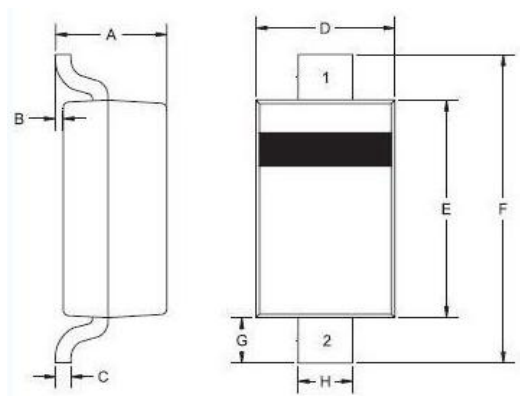
Soldering parameters

Reflow Condition		Pb-Free assembly (see as below)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150 °C
	-Temperature Max($T_{s(max)}$)	+200 °C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3 °C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3 °C/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217 °C
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_P)		+260(+0/-5) °C
Time within 5 °C of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6 °C/sec. Max
Time 25 °C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260 °C

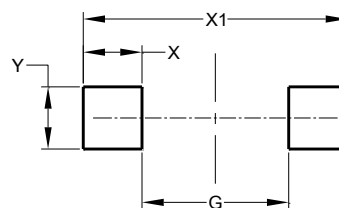


Package Dimensions & Suggested Pad Layout

SOD123

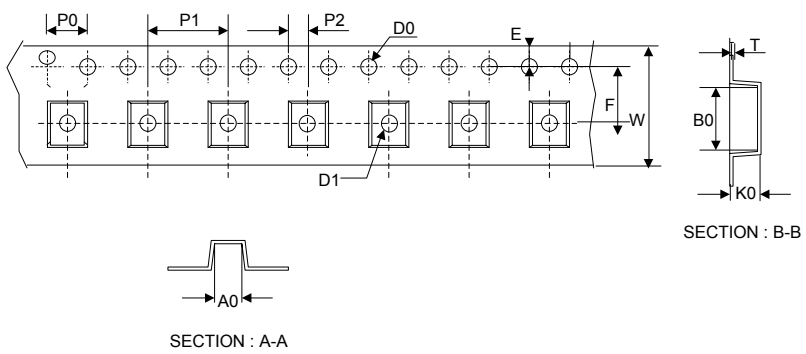
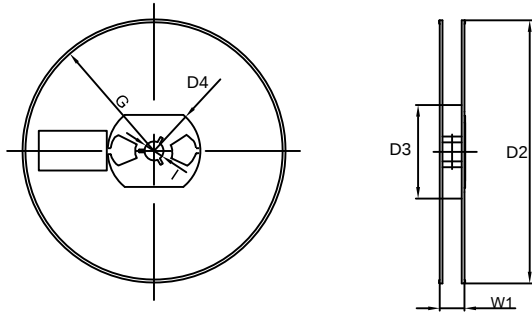


SOD123		
Dim	Min	Max
A	0.95	1.35
B	0.00	0.12
C	-	0.20
D	1.40	1.80
E	2.50	2.80
F	3.60	3.90
G	0.40	-
H	0.50	0.70
All Dimensions in mm		



Dimensions	Value (in mm)
G	2.20
X	1.20
X1	4.60
Y	1.20

Tape & reel specification

Tape		Symbol	Dimension (mm)
		P0	4.00±0.20
		P1	4.00±0.20
		P2	2.00±0.20
		D0	1.55±0.10
		D1	1.00±0.20
		E	1.75±0.20
		F	3.60±0.20
		W	8.00±0.40
		A0	2.30±0.40
		B0	4.00±0.40
		K0	1.50±0.40
		T	0.23±0.10
		SECTION: 3000PCS	
7" Reel		Symbol	Dimension (mm)
		D2	17.0±3.0
		D3	55Min.
		D4	R24.0±3.0
		G	R82.0±3.0
		I	13.0±2.0
		W1	11.0±3.0