

FEATURES

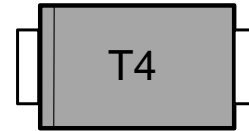
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance

VOLTAGE RANGE

100Volts

CURRENT

0.15 Ampere



MECHANICAL DATA

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

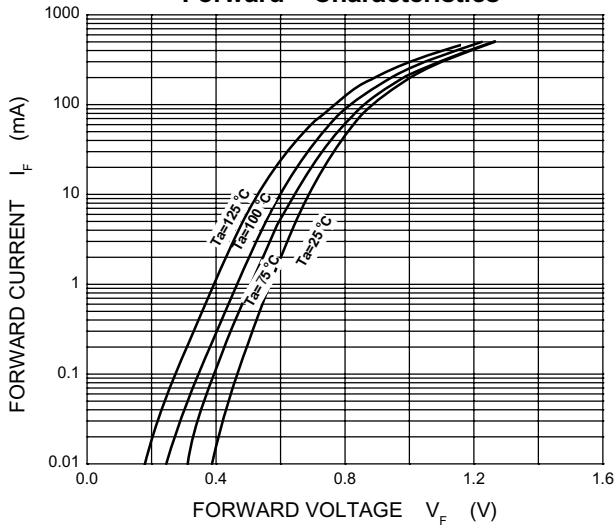
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

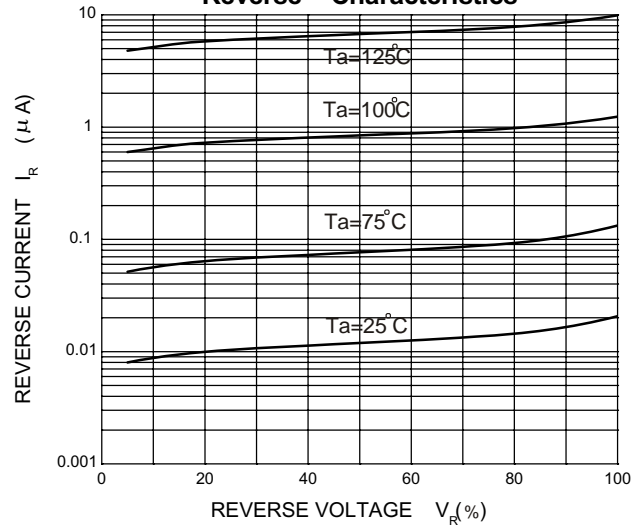
TYPE NUMBER	1N4148W	UNITS	
Maximum Recurrent Peak Reverse Voltage	100	V	
Maximum RMS Voltage	70	V	
Maximum DC Blocking Voltage	100	V	
Maximum Average Forward Rectified Current			
See Fig. 1	0.15	A	
Peak Forward Surge Current			
@ t=1.0 μs	4.0	A	
@ t=1.0s	1.0	A	
Maximum Instantaneous Forward Voltage			
at 0.01	0.85	V	
at 0.05A	1.0		
at 0.15A	1.25		
Maximum DC Reverse Current			
at Rated DC Blocking Voltage	Ta=25°C	1	μA
Typical Thermal resistance			
RθJA	355	°C/W	
RθJC	225		
Typical Junction Capacitance (VR=0V f=1MHz)	1.15	pF	
Total Power Dissipation	410	mW	
Maximum Reverse Recovery Time (TRR typical)	4	ns	
Operating Temperature Range Tj	-55 to +150	°C	
Storage Temperature Range Tstg	-55 to +150	°C	

RATING AND CHARACTERISTIC CURVES

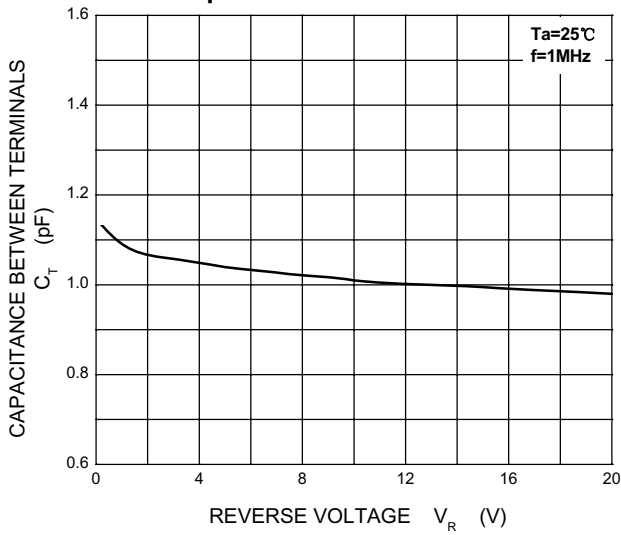
Forward Characteristics



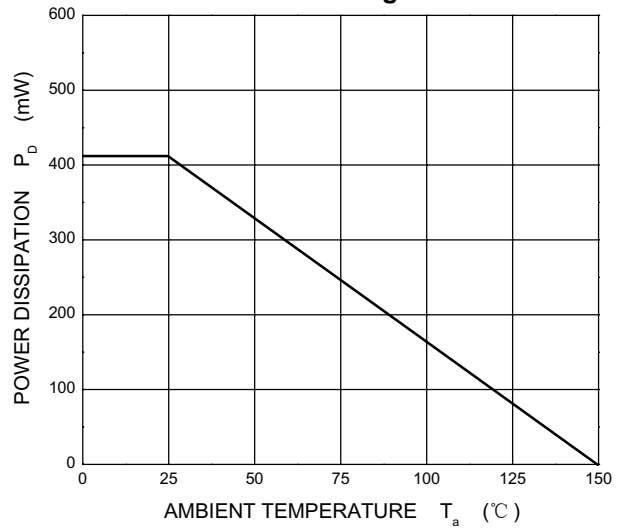
Reverse Characteristics



Capacitance Characteristics

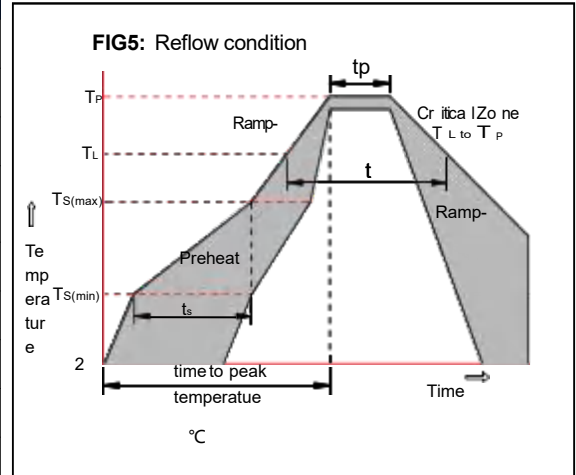


Power Derating Curve



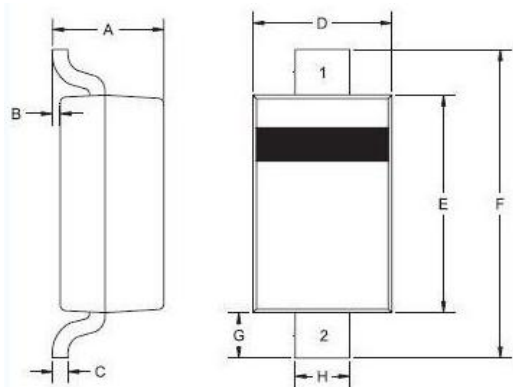
Soldering parameters

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

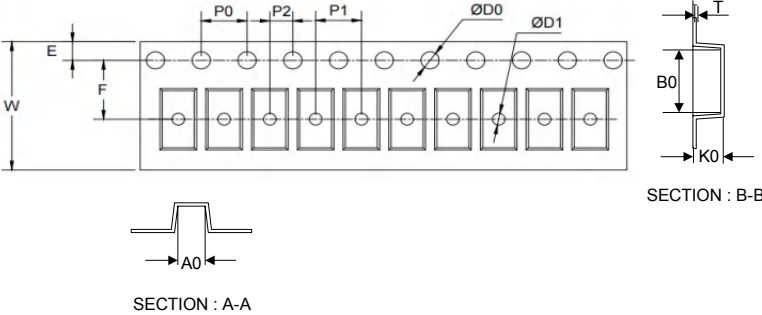
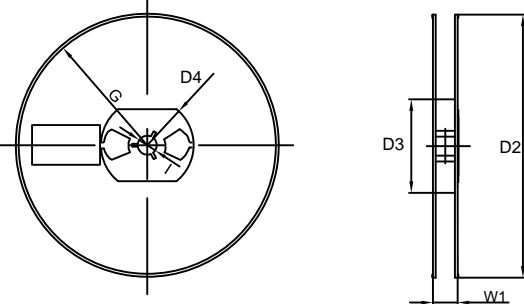
SOD123



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)	
 <p>SECTION : A-A</p> <p>SECTION : B-B</p>	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	
	<p>7" Reel</p> 	D2	177.0±3.0
		D3	55Min.
D4		R24.0±3.0	
G		R82.0±3.0	
I		13.0±2.0	
W1		11.0±3.0	
Quantity: 3000PCS			