

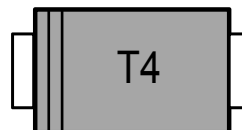
FEATURES

- 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	1N4148WL	UNITS
Maximum Recurrent Peak Reverse Voltage	100	V
Maximum RMS Voltage	70	V
Maximum DC Blocking Voltage	100	V
Maximum Average Forward Rectified Current	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 0.01A	0.85	V
at 0.05A	1.0	
at 0.15A	1.25	
Maximum DC Reverse Current Ta=25°C at 75V	1	μA
Typical Junction Capacitance (VR=0V f=1MHz)	1.15	pF
Total Power Dissipation	410	mW
Maximum Reverse Recovery Time (TRR)	4	ns
Operating Temperature Range Tj	-55 to +150	°C
Storage Temperature Range Tstg	-55 to +150	°C

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CHARACTERISTICS

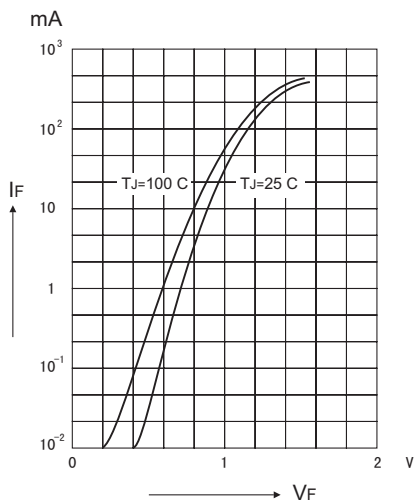


FIG 2: DYNAMIC FORWARD RESISTANCE
VERSUS FORWARD CURRENT

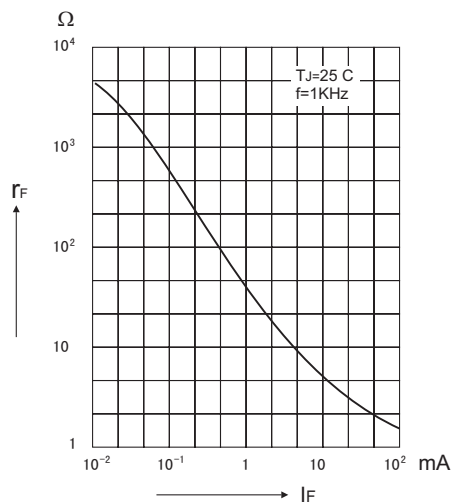


FIG 3: ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT
VERSUS PULSE DURATION

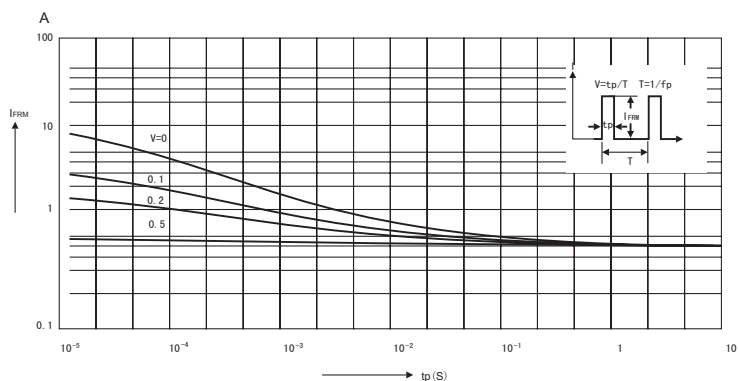
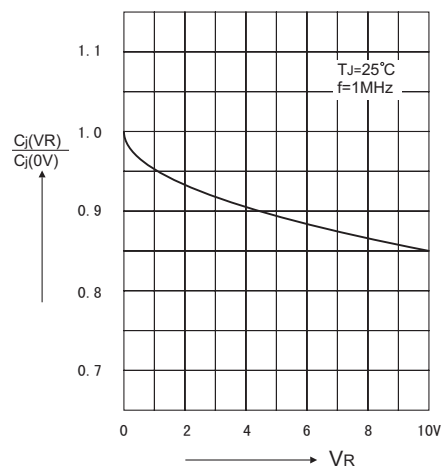
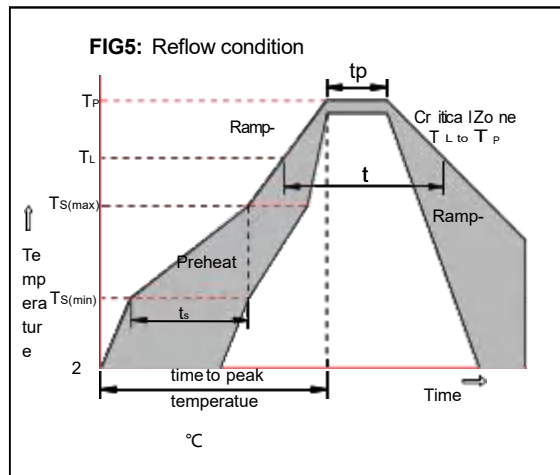


FIG. 4-RELATIVE CAPACITANCE VERSUS VOLTAGE



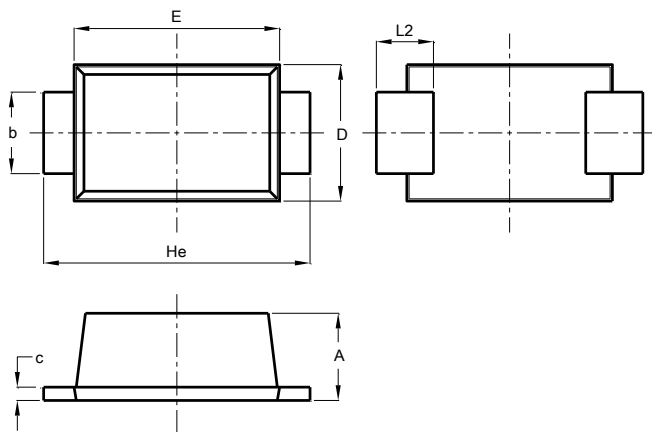
Soldering parameters

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

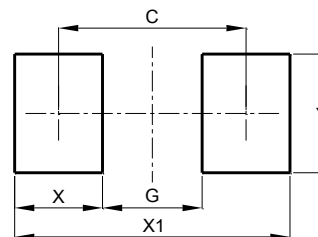


Package Dimensions & Suggested Pad Layout

SOD123FL

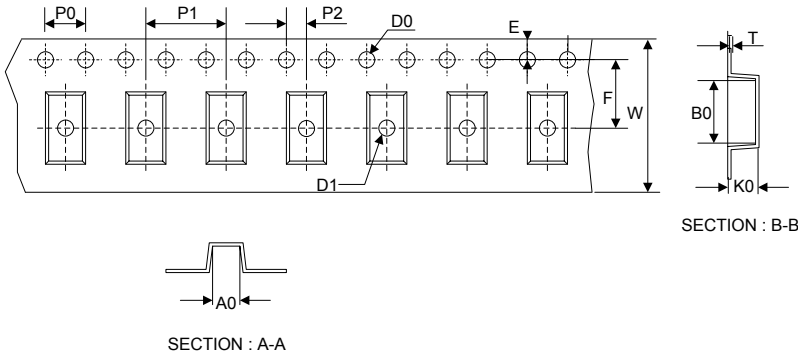
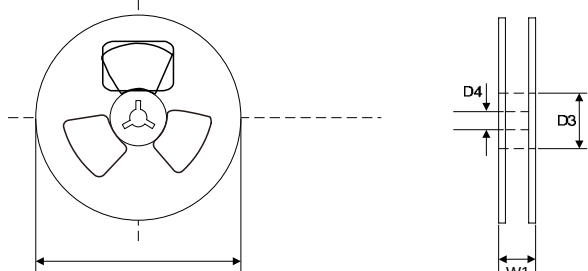


SOD123FL		
Dim	Min	Max
A	1.00	1.20
b	0.80	1.10
c	0.12	0.20
D	1.75	1.95
E	2.60	2.90
He	3.55	3.80
L2	0.50	0.85
All Dimensions in mm		



Dimensions	Value (in mm)
C	3.25
G	2.00
X	1.25
X1	4.50
Y	1.50

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±0.15
		D1	1.00±0.20
		E	1.75±0.20
		F	3.50±0.25
		W	8.00±0.20
		A0	1.85±0.20
		B0	3.95±0.20
		K0	1.30±0.20
		T	0.21±0.10
		D2	178.0±5.0
		D3	55.0Min.
7" Reel		D4	10.0±2.5
		W1	11.5±2.5
		Quantity: 3000PCS	