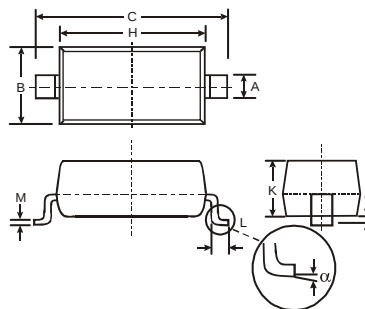


FEATURES

- Fast switching speed
- Low forward voltage: maximum of 0.715V at 1mA
- Fast reverse recovery: maximum of 4ns
- Low capacitance: maximum of 2pF
- Surface mount package ideally suited for automated insertion
- For general purpose switching applications
- UL 94V-0 rated case



SOD123		
Dim	Min	Max
A	0.55 Typ	
B	1.40	1.70
C	3.55	3.85
H	2.55	2.85
J	0	0.10
K	1.00	1.35
L	0.25	0.40
M	0.10	0.15
α	0	8°

MECHANICAL DATA

- Case: SOD123
- Terminals: Matte tin finish, Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.01 grams (approx)

All Dimensions in inches & (mm)

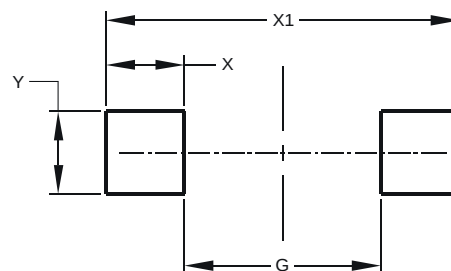
MAXIMUM RATINGS & THERMAL CHARACTERISTICS

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

Parameter	Symbol	1N4148W	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS Voltage	V_{RMS}	70	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Forward Continuous Current	I_{FM}	300	mA
Peak Forward Surge (Non-Repetitive) Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	2.0 1.0	A
Power Dissipation (Note 1)	P_D	400	mW
Junction Thermal Resistance (Note 1)	$R_{\theta JA}$	315	°C / W
Operating Temperature Range	T_J	-65 to +150	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C

Note: 1. Part mounted on FR-4 PC board with minimum recommended pad layout.

PAD LAYOUT



Dimensions	Value (in mm)
G	2.250
X	0.900
X1	4.050
Y	0.950

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Min	Max	Unit
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	100	--	V
Maximum Instantaneous Forward Voltage $I_F = 1.0\text{mA}$ $I_F = 10\text{mA}$ $I_F = 50\text{mA}$ $I_F = 150\text{mA}$	V_{FM}	--	0.715 0.855 1.0 1.25	V
Maximum DC Reverse Current At rated DC blocking voltage (Note 2) $V_R = 75\text{V}$ $V_R = 75\text{V}, T_J = +150^\circ\text{C}$ $V_R = 25\text{V}, T_J = +150^\circ\text{C}$ $V_R = 20\text{V}$	I_{RM}	--	1.0 50 30 25	μA μA μA nA
Typical Junction Capacitance	C_T	--	2.0	pF
Reverse Recover Time	t_{rr}	--	4.0	ns

Note: 1. Short duration pulse test used to minimize self-heating effect.

RATING & CHARACTERISTIC CURVES

FIG.1-TOTAL CAPACITANCE vs. REVERSE VOLTAGE

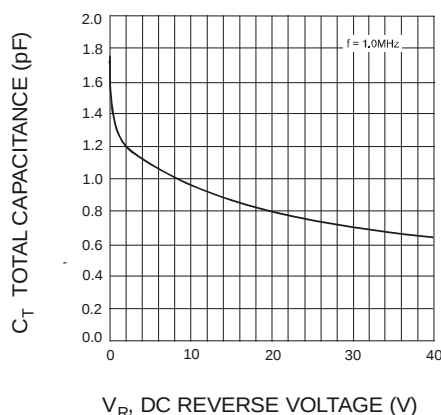


FIG.2-MAXIMUM FORWARD CURRENT DERATING

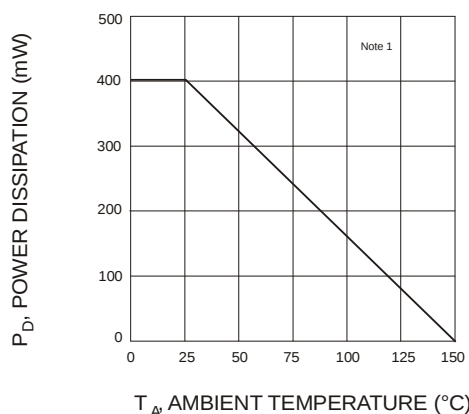


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

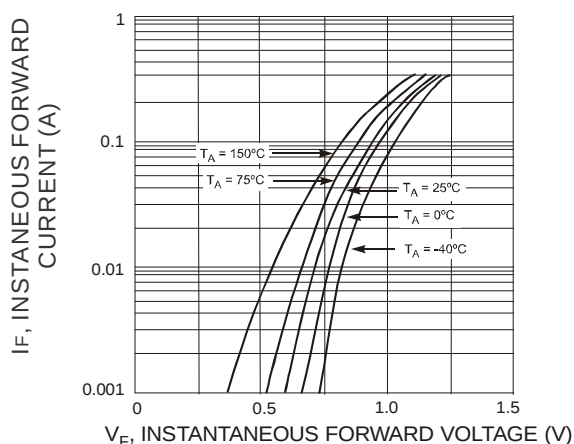


FIG.4-TYPICAL REVERSE CHARACTERISTICS

