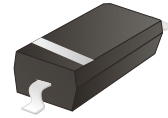


1N4148W-G

RoHS Device

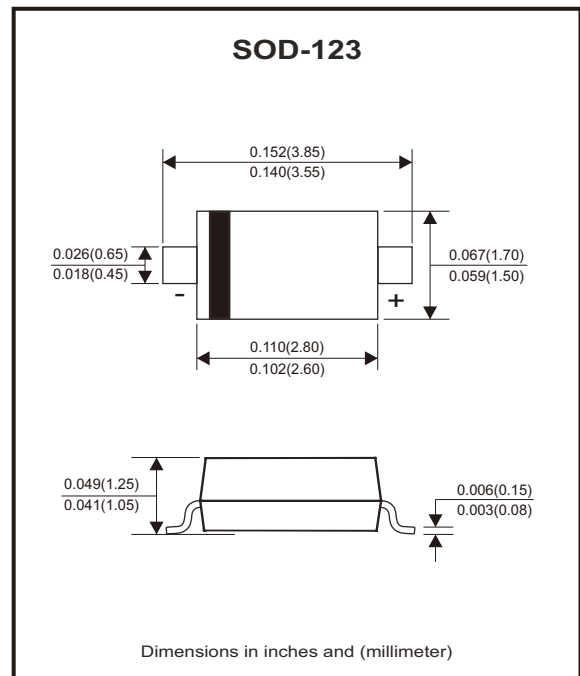


Features

- High current capability.
- Low switching noise.
- High surge capability.
- Low power loss & high efficiency.
- Guard ring protection.
- Plastic materials used carries underwriters laboratory flammability classification 94V-0.

Mechanical data

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD-750, method 2026.



Circuit Diagram



Maximum Ratings (at TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak repetitive reverse voltage	V_{RM}	100	V
RMS reverse voltage	V_{RMS}	50	V
Reverse voltage	V_R	75	V
Max. Average rectified output current @ $T_A=25^\circ C$	$I_{F(AV)}$	200	mA
Peak forward surge current, 0.001ms	I_{FSM}	4	A
Power dissipation derate above 25°C	P_{TOT}	410	mW
Max. Thermal resistance junction to ambient	$R_{\theta JA}$	450	°C/W
Operating junction temperature	T_J	150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Electrical Characteristics (at Ta=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Value	Unit
Max. Forward voltage	V_F	$I_F=1\text{mA}$	0.715	V
		$I_F=10\text{mA}$	0.855	V
		$I_F=50\text{mA}$	1	V
		$I_F=150\text{mA}$	1.25	V
Max. DC reverse current	I_R	$V_R=20\text{V}$	0.025	μA
		$V_R=75\text{V}$	2.5	
Junction capacitance	C_J	$f=1\text{MHz}, V_R=0\text{V}$	1.5	pF
Reverse recovery time	T_{rr}	$I_F=10\text{mA}, I_R=1\text{mA}, V_R=6\text{V}, R_L=100\Omega$	4	ns

Rating and Characteristic Curves (1N4148W-G)

Fig.1 - Current Derating Curve

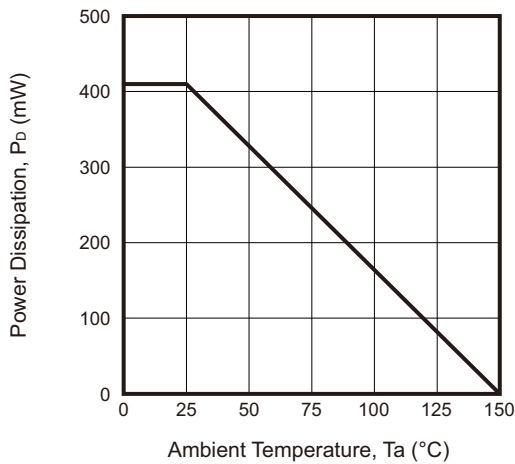


Fig.2 - Peak Forward Surge Current

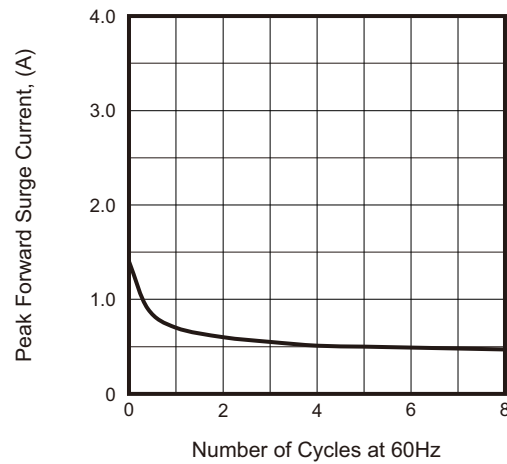


Fig.3 - Typical Forward Characteristics

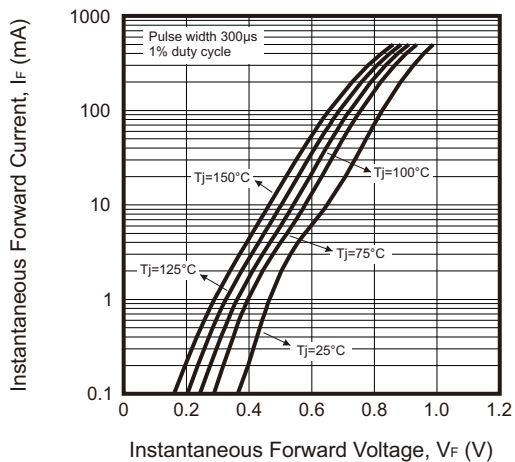
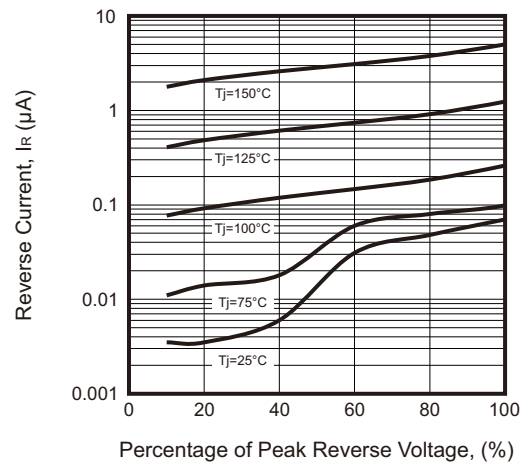
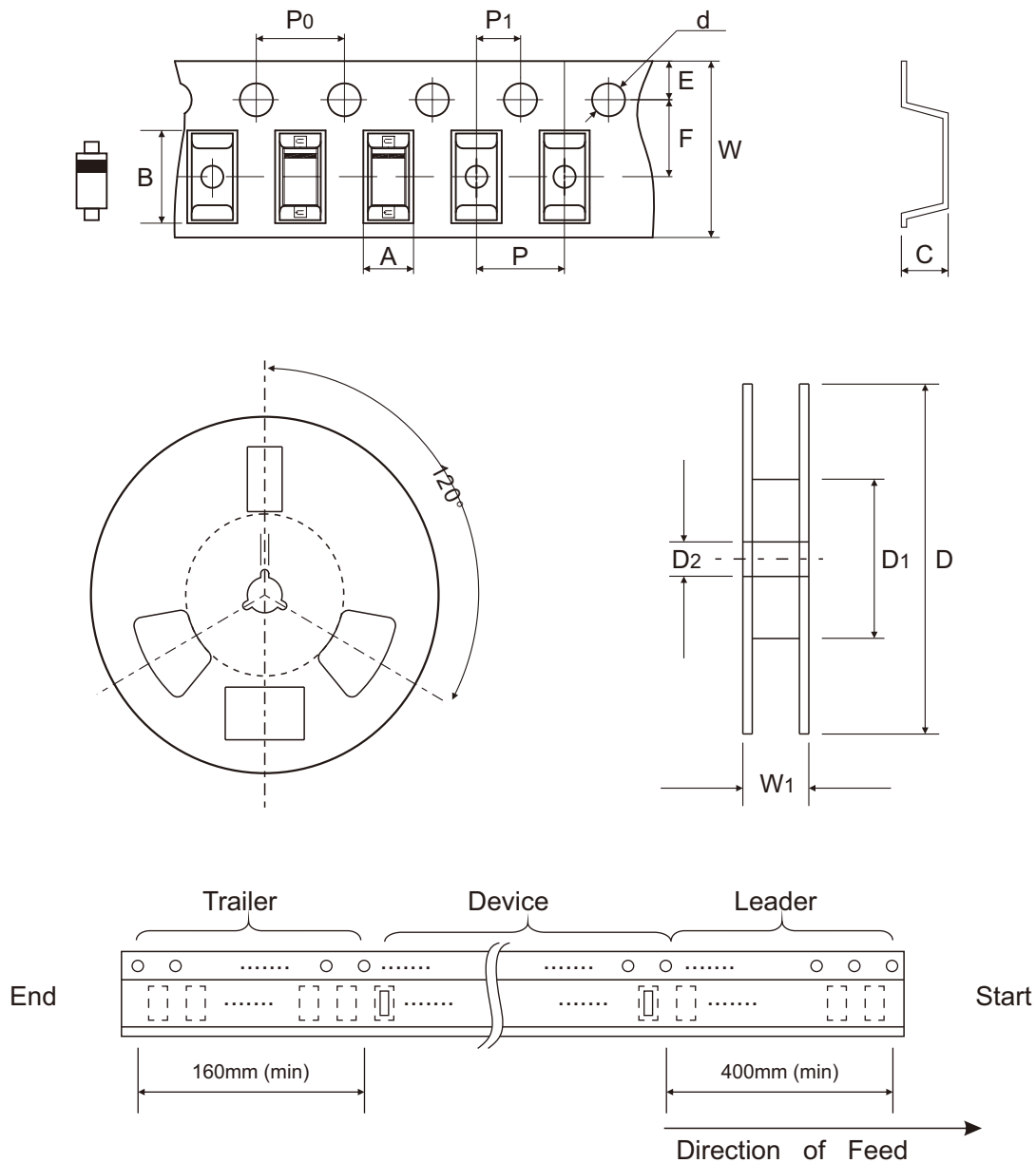


Fig.4 - Typical Reverse Characteristics



Reel Taping Specification



SOD-123	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.85 ± 0.10	3.94 ± 0.10	1.57 ± 0.10	1.55 ± 0.10	178.00 ± 1.00	50.50 max	13.00 ± 0.50
	(inch)	0.073 ± 0.004	0.155 ± 0.004	0.062 ± 0.004	0.061 ± 0.004	7.008 ± 0.039	1.988 max	0.512 ± 0.020

SOD-123	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.10 ± 0.30	11.55 min
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.319 ± 0.012	0.455 min

Company reserves the right to improve product design , functions and reliability without notice.

REV:A

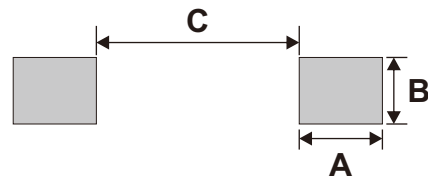
Marking Code

Part Number	Marking Code
1N4148W-G	T4



Suggested PAD Layout

SIZE	SOD-123	
	(mm)	(inch)
A	1.00	0.039
B	0.80	0.031
C	2.44	0.096



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-123	3,000	7