

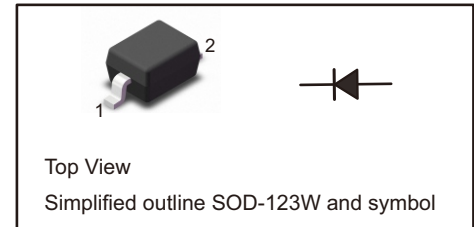
Switching Diodes

Features

- Fast Switching Speed
- Low Forward Voltage
- Fast Reverse Recovery: Maximum of 4ns
- Surface Mount Package Ideally Suited for Automated Insertion
- For General Purpose Switching Applications
- Totally Lead-Free & Fully RoHS Compliant (Notes 1)
- Halogen and Antimony “Green” Device (Note 2)
- PPAP Capable (Note 4)

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Mechanical Date

- Case: SOD-123W
- Case Material: Molded Plastic, “Green” Molding Compound;
UL Flammability Classification Rating 94V-0

Maximum Ratings (TA=+25°C, unless other otherwise specified)

Parameter	Symbols	MMDL914WA	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Reverse Voltage	V_R	100	V
Peak Forward Current	I_R	200	mA
Peak Forward Surge Current	$I_{FM(surge)}$	500	mA
Non-repetitive Peak Forward Surge Current at 1ms	I_{FSM}	2	A
Total Power Dissipation	P_{tot}	450	mW
Typical Thermal Resistance (4)	$R_{\theta JA}$	290	°C/W
Operating and Storage Temperature Range	T_J, T_{stg}	-55 ~ +150	°C



Electrical Characteristics($T_A=+25^{\circ}\text{C}$, unless other otherwise specified)

Parameter		Symbols	MMDL914WB	Units
Reverse Breakdown voltage	at 0.1 mA	$V_{(BR)R}$	100	V
Maximum Forward Voltage	at 10 mA	V_F	1.00	V
Peak Reverse Current	at $V=20\text{V}$ $T_j=25^{\circ}\text{C}$	I_R	0.025	μA
	at $V=75\text{V}$ $T_j=25^{\circ}\text{C}$		5	
Typical Junction Capacitance	$f=1\text{MHz}, V_R=0\text{V}$	C_j	4	pF
Maximum Reverse Recovery time(5)		t_{rr}	4	ns

Notes

- 1.No purposely added lead. Fully EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant.
- 2.Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine,<900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
- 3.Automotive products are AEC-Q101 qualified and are PPAP capable. Automotive, AEC-Q10x and standard products are electrically and thermally the same,except where specified.
- 4.P.C.B. mounted with 5*5mm copper pad areas.
- 5.Measured with $I_F=I_R=10\text{mA}, I_{rr}=0.1 \times I_R, R_L=100\Omega$.

Fig.1 Power Derating Curve

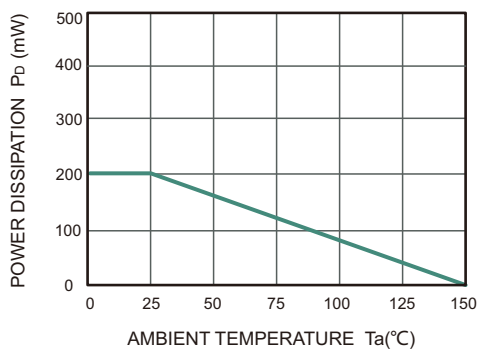


Fig.2 Reverse Characteristics

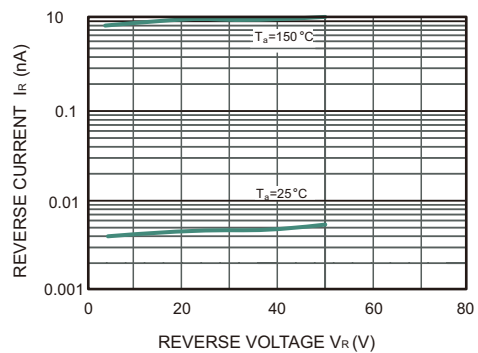


Fig.3 Forward Characteristics

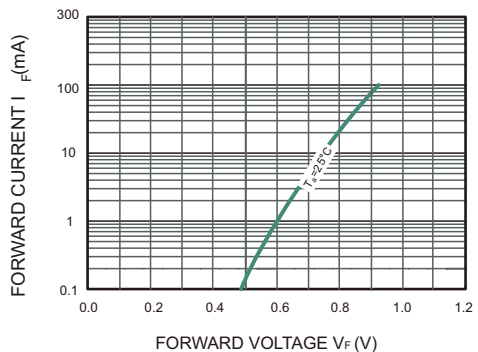
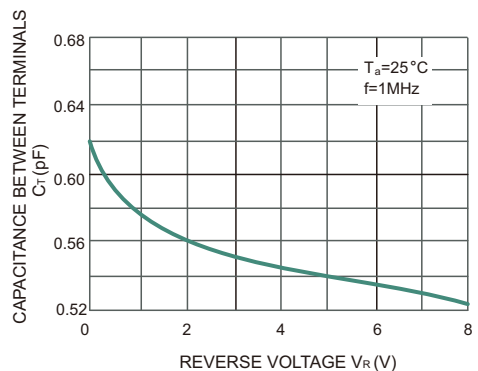


Fig.4 Capacitance Characteristics

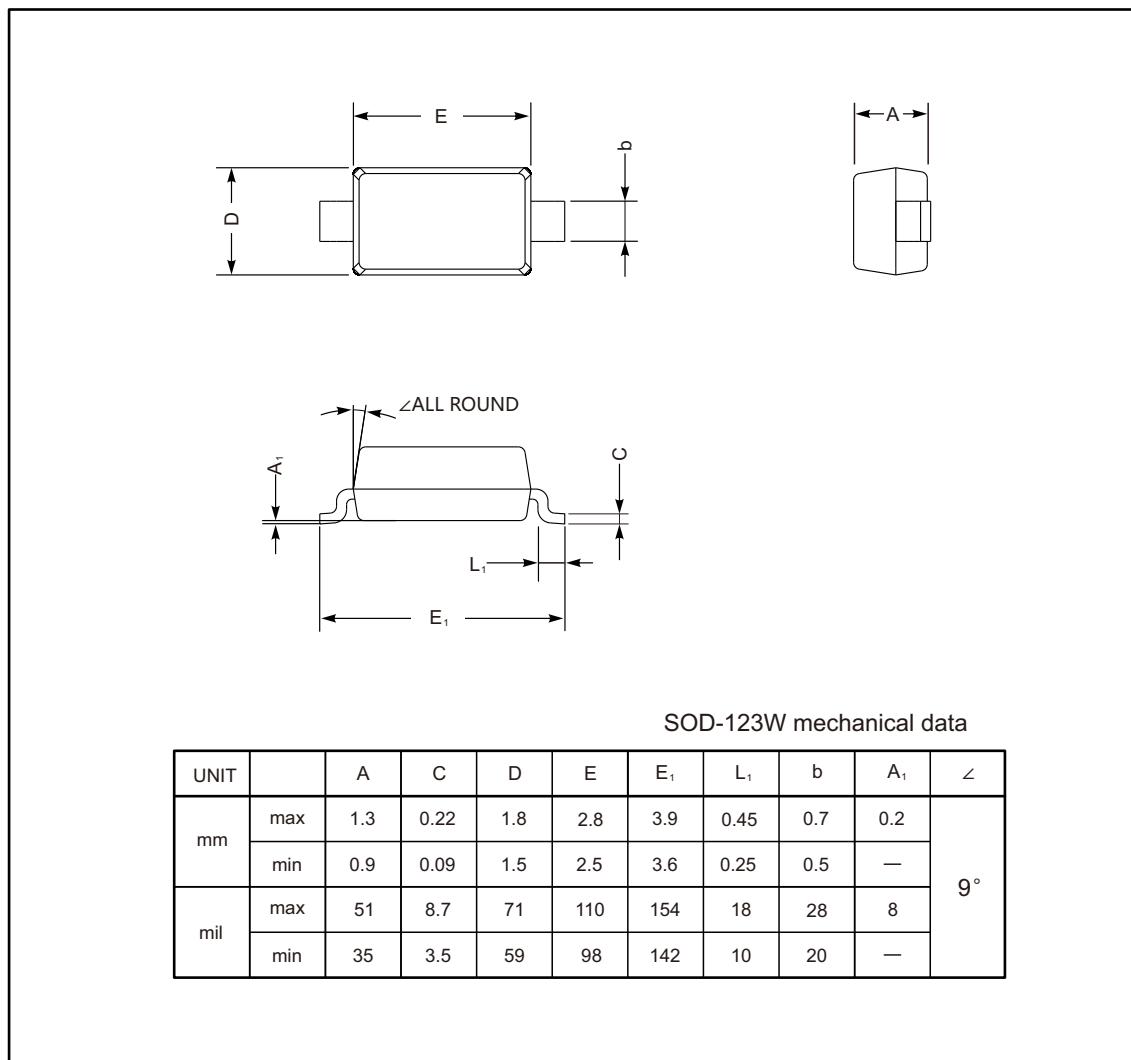




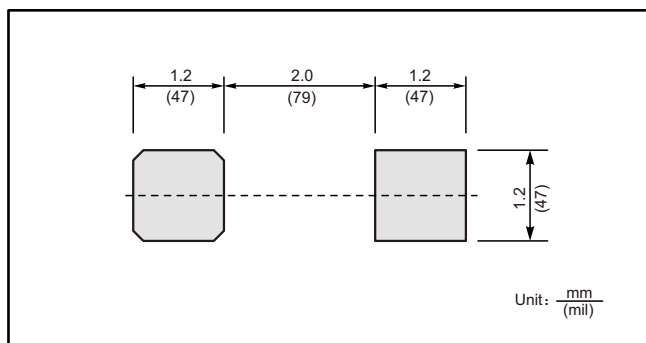
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123W



The recommended mounting pad size



Marking

Type number	Marking code
MMDL914WA	Q5



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