

1N4148WS-AU SERIES

SURFACE MOUNT SWITCHING DIODES

VOLTAGE

100 Volt

POWER

250mWatt

SOD-323

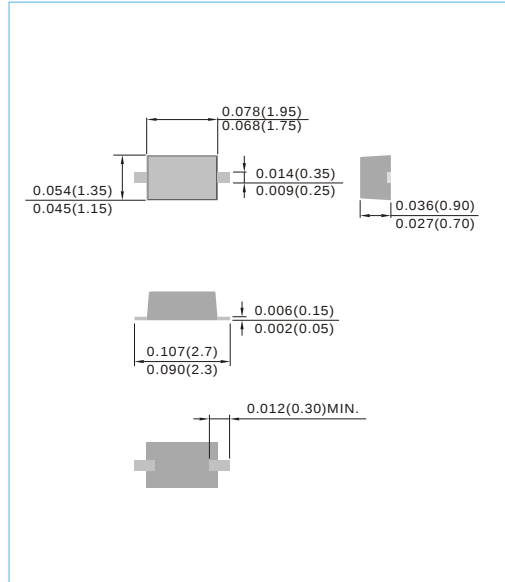
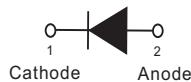
Unit : inch(mm)

FEATURES

- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: SOD-323, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00014 ounces, 0.0041 grams
- Polarity: Color band denotes cathode end



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	1N4148WS-AU	1N4448WS-AU	BAV16WS-AU	UNITS
Marking Code	-	A2	A3	A6	-
Reverse Voltage	V_R	75			V
Peak Reverse Voltage	V_{RM}	100			V
RMS Voltage	V_{RMS}	50			V
Maximum Average Forward Current at $T_A=25^\circ\text{C}$	$I_{F(AV)}$	200			mA
Peak Forward Surge Current 0.001ms 10ms 1s	I_{FSM}	4 1.5 0.5			A
Power Dissipation Derate Above 25°C	P_D	250			mW
Maximum Forward Voltage	V_F	0.715 @ 0.001A 0.855 @ 0.01A 1 @ 0.05A 1.25 @ 0.15A	0.72 @ 0.005A 1 @ 0.1A	0.715 @ 0.001A 0.855 @ 0.01A 1 @ 0.05A	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	0.025 @ 20V 2.5 @ 75V	2.5 @ 75V	1 @ 75V	μA
Junction Capacitance (Note 1)	C_J	1.5	4	2	pF
Maximum Reverse Recovery Time (Note 2)	t_{rr}	4	4	6	ns
Typical Thermal Resistance (Note 3) (Note 4)	$R_{\theta JA}$	500 650			$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150			$^\circ\text{C}$

Notes :

1. C_J at $V_R=0$, $f=1\text{MHz}$
2. From $I_F=10\text{mA}$ to $I_R=1\text{mA}$, $V_R=6\text{Volts}$, $R_L=100\Omega$
3. Mounted on a FR4, single-sided copper , with 50 x 15mm PCB
4. Mounted on a FR4, single-sided copper , with mini pad

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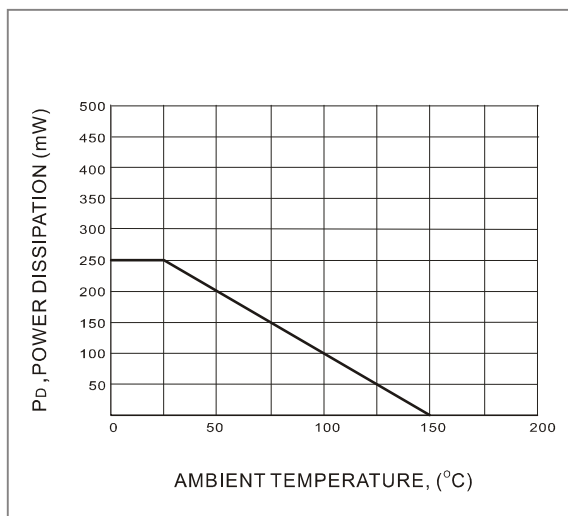


FIG. 1 POWER DERATING CURVE

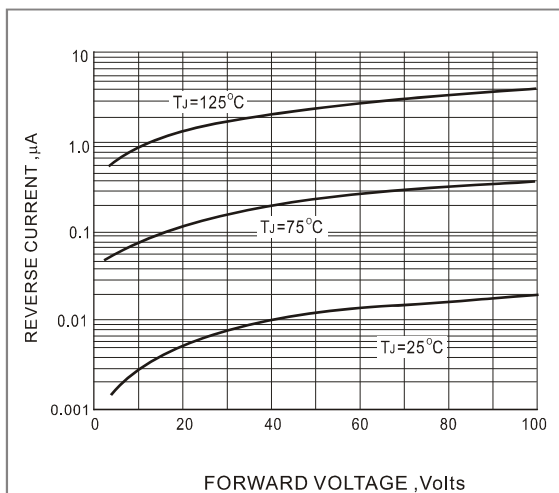


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

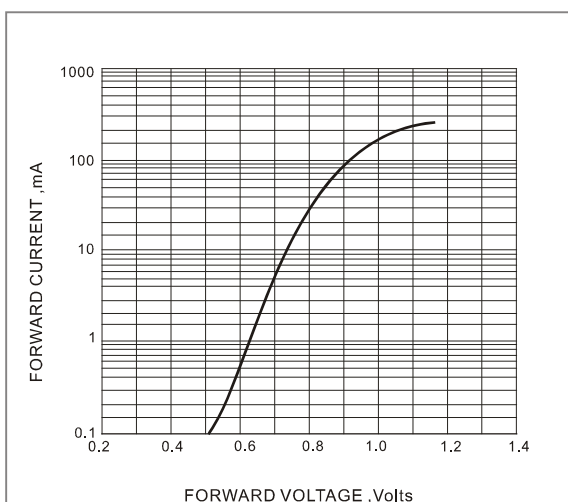


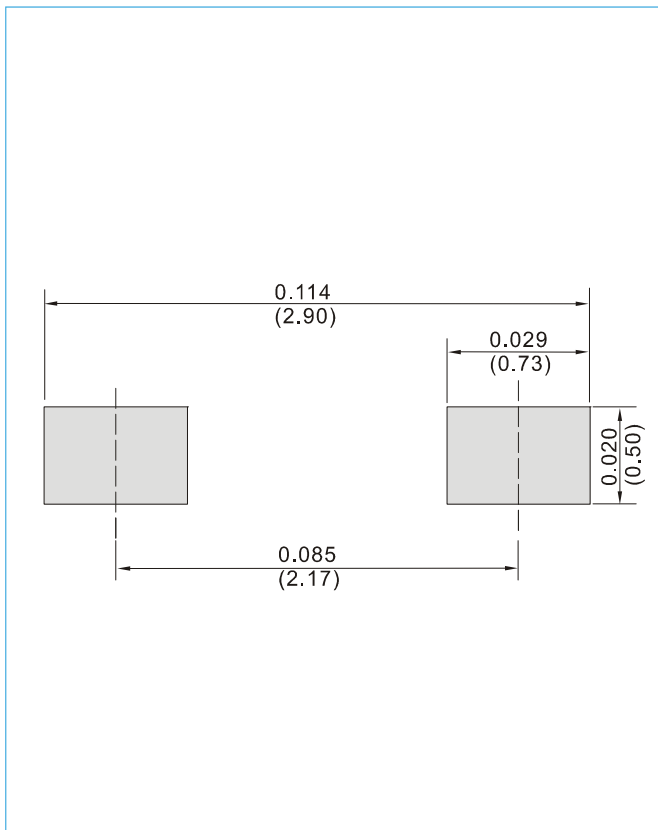
FIG. 3-TYPICAL FORWARD CHARACTERISTIC

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MOUNTING PAD LAYOUT

SOD-323

Unit : inch(mm)



ORDER INFORMATION

- Packing information

T/R - 12K per 13" plastic Reel

T/R - 5K per 7" plastic Reel

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Part No_packing code_Version

1N4148WS-AU_R1_000A1

1N4148WS-AU_R2_000A1

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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