

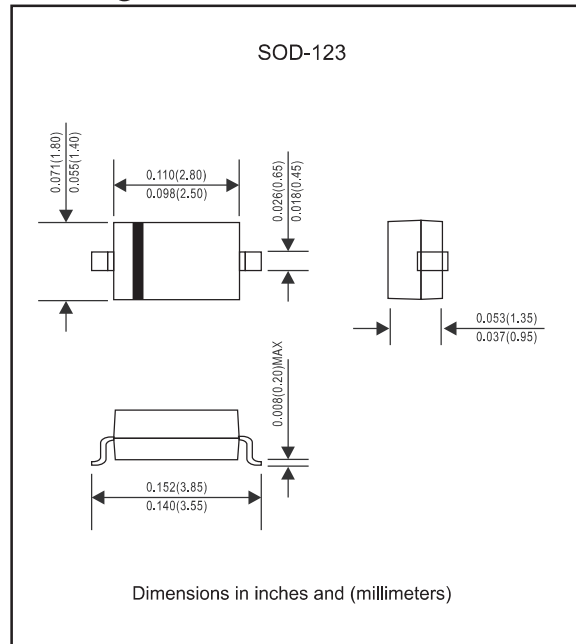
### Features

- Fast Switching Device ( $t_{rr} < 4.0$  ns)
- General Purpose Diodes
- Flat Lead SOD-123 Small Outline Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode
- Lead-free parts for green partner, exceeds environmental standards of MIL-STD-19500 /228

### Mechanical data

- Epoxy: UL94-VO rated flame retardant
- Case : Molded plastic, SOD-123
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any

### Package Outline



### Maximum ratings and Electrical characteristics (AT $T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	Symbol	1N4148W	UNIT
Maximum reverse voltage	$V_R$	75	V
Maximum peak reverse voltage	$V_{RM}$	100	V
Maximum RMS voltage	$V_{RMS}$	50	V
Maximum DC blocking voltage	$V_{DC}$	75	V
Maximum average forward current at $T_A = 25^\circ\text{C}$	$I_O$	150	mA
Maximum peak forward surge current, 1.0us	$I_{FSM}$	2	A
Maximum power dissipation derate above $25^\circ\text{C}$	$P_D$	410	mW
Maximum forward voltage	$V_F$	0.715@0.001A 0.855@0.01A 1.0@0.05A 1.25@0.15A	V
Maximum DC reverse current at rated DC blocking voltage $T_j = 25^\circ\text{C}$	$I_R$	0.025@20V 2.5@75V	uA
Typical junction capacitance (Notes 1)	$C_j$	1.5	pF
Maximum reverse recovery time (Notes 2)	$t_{rr}$	4.0	ns
Maximum thermal resistance	$R_{\theta JA}$	450	$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_j$	-55 to +150	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

#### Notes :

1.  $C_j$  at  $V_R = 0\text{V}$ ,  $f = 1\text{MHZ}$
2. From  $I_F = 10\text{mA}$  to  $I_R = 1\text{mA}$ ,  $V_R = 6\text{V}$ ,  $R_L = 100\text{ohm}$

## Rating and characteristic curves (1N4148W)

Fig. 1 TYPICAL FORWARD CHARACTERISTICS

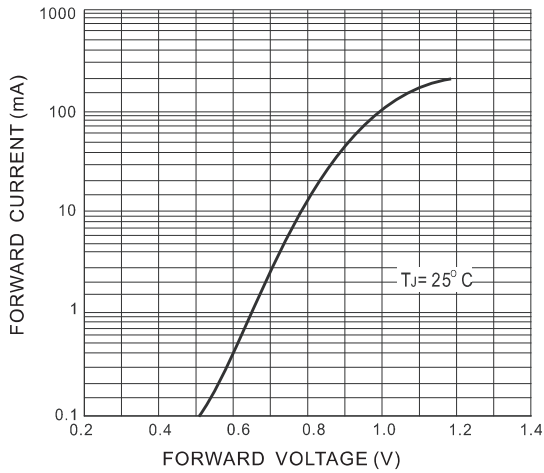


Fig. 2 TYPICAL REVERSE CHARACTERISTICS

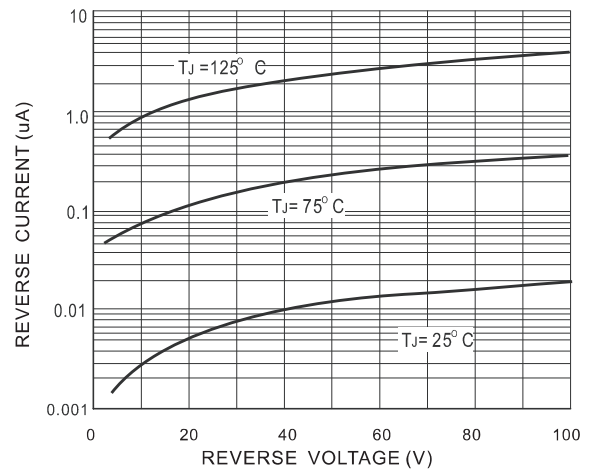


Fig.3-TYPICAL JUNCTION CAPACITANCE

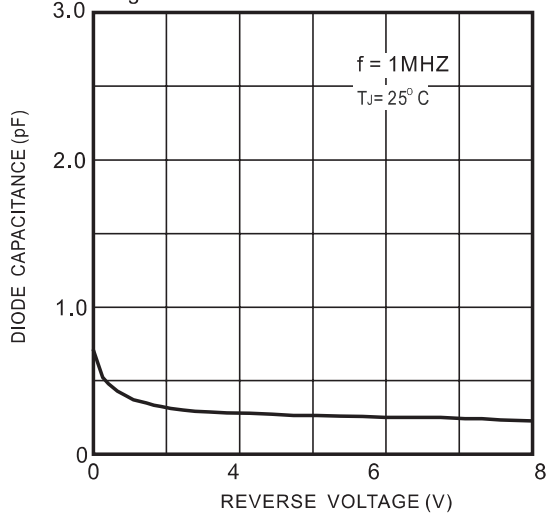
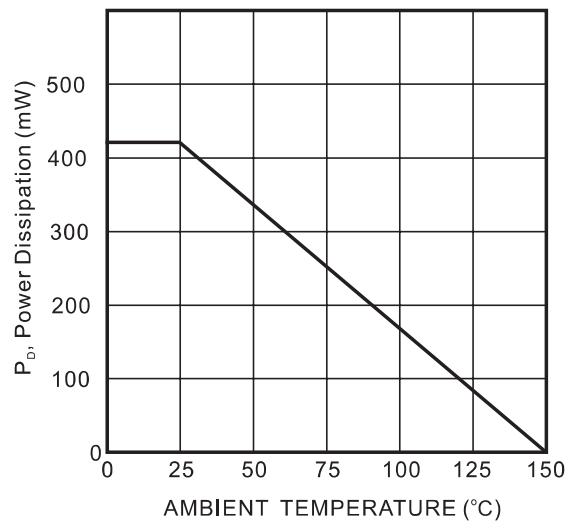
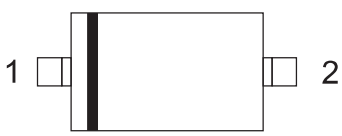



Fig. 4 POWER DERATING CURVE



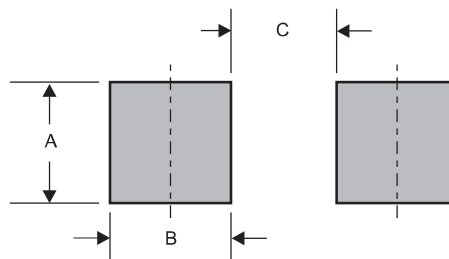
### Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

### Marking

Type number	Marking code
1N4148W	T4

### Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-123	0.048 (1.22)	0.036 (0.91)	0.093 (2.36)

### Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
SOD-123	7"	3,000	4.0	30,000	183*183*123	178	382*262*387	240,000	9.5

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Diodes - General Purpose, Power, Switching category](#):*

*Click to view products by [AnBon manufacturer](#):*

Other Similar products are found below :

[MCL4151-TR3](#) [MMBD3004S-13-F](#) [RD0306T-H](#) [RD0506LS-SB-1H](#) [RGP30G-E373](#) [DSE010-TR-E](#) [BAQ333-TR](#) [BAQ335-TR](#) [BAQ33-GS18](#) [BAS1602VH6327XT](#) [BAV17-TR](#) [BAV19-TR](#) [BAV301-TR](#) [BAW27-TAP](#) [HSC285TRF-E](#) [NSVBAV23CLT1G](#) [NTE525](#) [1SS181-TP](#) [1SS184-TP](#) [1SS193,LF](#) [1SS193-TP](#) [1SS400CST2RA](#) [SBAV99LT3G](#) [SDAA13](#) [LL4448-GS18](#) [SHN2D02FUTW1T1G](#) [LS4150GS18](#) [LS4151GS08](#) [SMMD7000LT3G](#) [FC903-TR-E](#) [1N4449](#) [1N4934-E3/73](#) [1SS226-TP](#) [APT100DL60HJ](#) [RFUH20TB3S](#) [RGP30G-E354](#) [RGP30M-E3/73](#) [D291S45T](#) [MCL4151-TR](#) [BAS 16-02V H6327](#) [BAS 21U E6327](#) [BAS 28 E6327](#) [BAS33-TAP](#) [BAS 70-02V H6327](#) [BAV300-TR](#) [BAV303-TR3](#) [BAW27-TR](#) [BAW56DWQ-7-F](#) [BAW56M3T5G](#) [BAW75-TAP](#)