

# 1N4148W

## High Speed Switching Diode 400mW

### Features

- Halogen free available upon request by adding suffix "-HF"
- Fast switching speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For general purpose switching applications
- High conductance
- Lead Free Finish/RoHS Compliant("P" Suffix designates RoHS Compliant. See ordering information)

### Mechanical Data

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Indicated by Cathode Band
- Weight: 0.01 grams (approx.)
- Marking Code: T4,A2

### Absolute maximum Ratings

Symbol	Parameter	Rating	Unit
$V_{RM}$	Peak Repetitive Reverse Voltage	100	V
$V_R$	DC Reverse Blocking Voltage	100	V
$V_{R(RMS)}$	RMS Reverse Voltage	71	V
$I_{FM}$	Peak Forward Current	300	mA
$I_O$	Average Rectified Output Current	150	mA
$I_{FSM}$	Forward Surge Current @1 $\mu$ s	2	A
	@1s	1	A
$P_D$	Power Dissipation	400	mW
$R_{\theta ja}$	Thermal Resistance Junction to Ambient	312.5	$^{\circ}C/W$
$T_J$	Operating Junction Temperature	-65 to +150	$^{\circ}C$
$T_{STG}$	Storage Temperature	-65 to +150	$^{\circ}C$

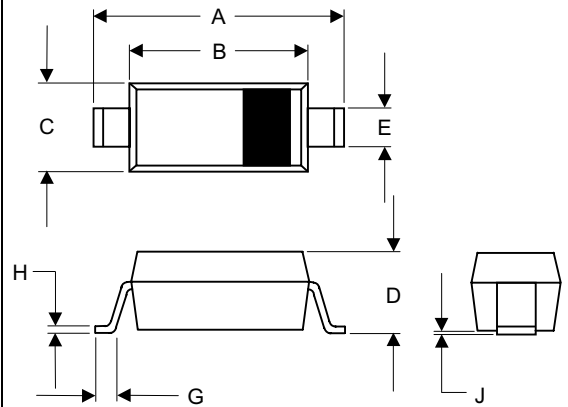
### Electrical Characteristics @ 25 $^{\circ}C$ Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
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#### OFF CHARACTERISTICS

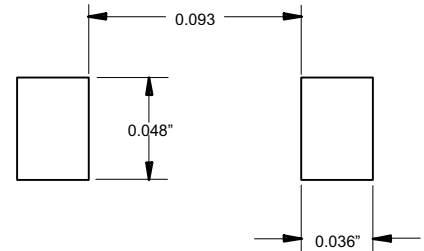
$V_F$	Forward Voltage Drop ( $I_F=1mA_{dc}$ )	---	0.715	Vdc
	( $I_F=10mA_{dc}$ )	---	0.855	
	( $I_F=50mA_{dc}$ )	---	1.00	
	( $I_F=150mA_{dc}$ )	---	1.25	
$I_R$	Reverse Current ( $V_R=75V_{dc}, T=25^{\circ}C$ )	---	1.0	$\mu A_{dc}$
	( $V_R=20V_{dc}, T=25^{\circ}C$ )	---	0.025	
	( $V_R=75V_{dc}, T=150^{\circ}C$ )	---	50	
$C_T$	Total Capacitance ( $V_R=0V_{dc}, f=1.0MHz$ )	---	2.0	pF
$T_{rr}$	Reverse Recovery Time ( $I_{rr}=0.1I_R, I_F=I_R, R_L=100\Omega$ )	---	4.0	ns

### SOD123



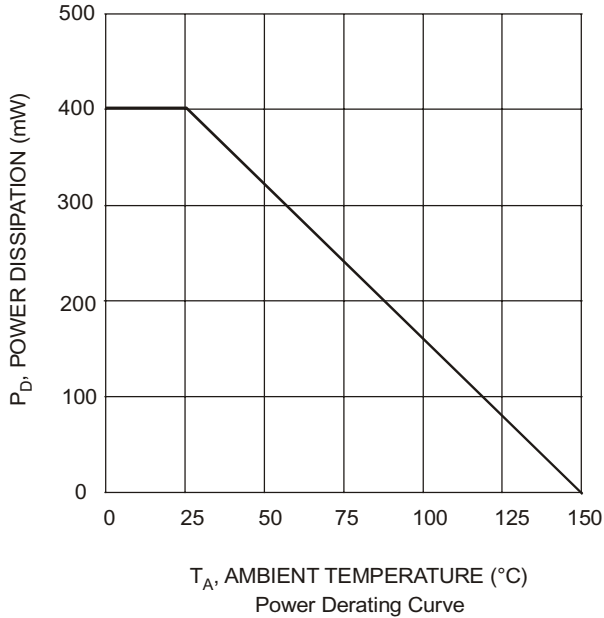
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	----	.053	----	1.35	
E	.012	.026	0.30	.66	
G	.006	----	0.15	----	
H	----	.01	----	.25	
J	----	.006	----	.15	

#### SUGGESTED SOLDER PAD LAYOUT

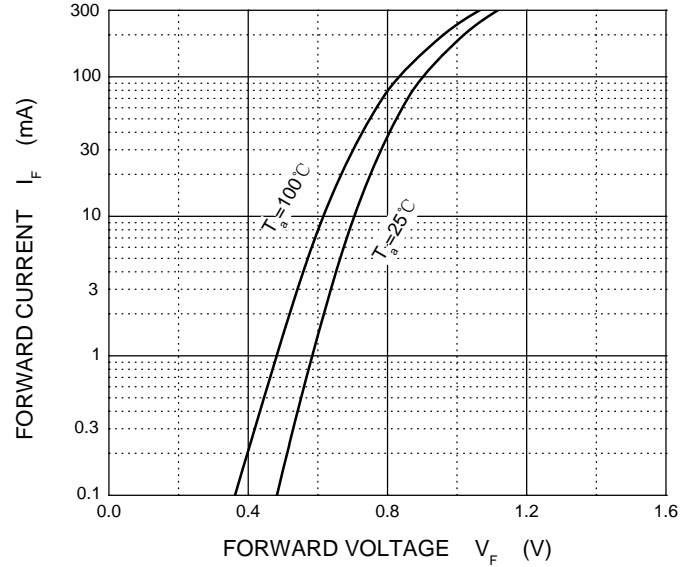


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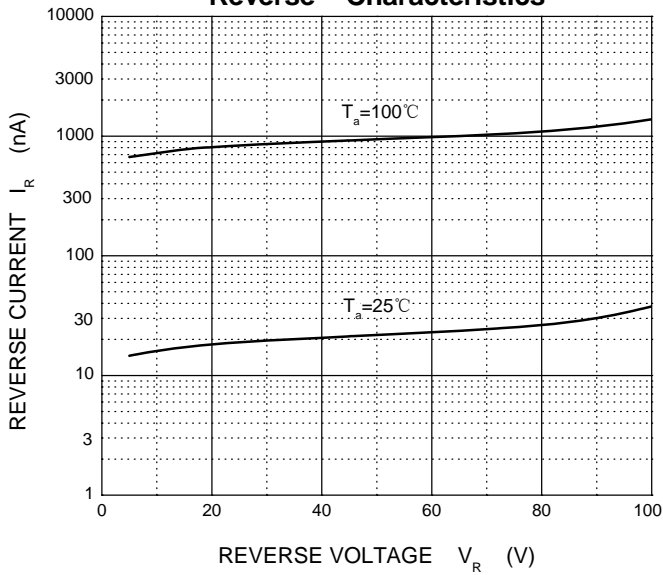
**Power Derating Curve**



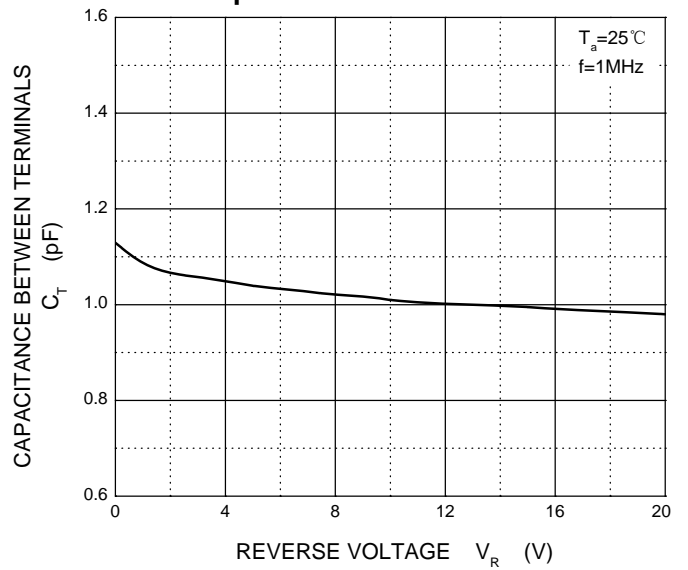
**Forward Characteristics**



**Reverse Characteristics**



**Capacitance Characteristics**





Micro Commercial Components

## Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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