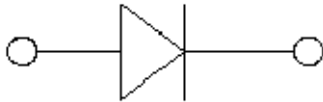


Small-Signal Fast Switching Diodes



Features

- V_R 100V
- I_{FAV} 250mA

Typical Applications

- Extreme fast switches

Mechanical Data

- **Package:** SOD123
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** T5

■ Maximum Ratings ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions	VALUE
Repetitive peak reverse voltage	V_{RRM}	V		100
Reverse voltage	V_R	V	$I_R=100\mu\text{A}$	100
Peak forward surge current	I_{FSM}	A	Pulse width=1 us Pulse width=1 s	2 0.5
Average forward current	I_{FAV}	mA		250
Power dissipation	P_{tot}	mW		500
Maximum junction temperature	T_j	$^\circ\text{C}$		-55 to +150
Storage temperature range	T_{stg}	$^\circ\text{C}$		-55to +150
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	$^\circ\text{C}/\text{W}$		315

■ Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	Symbol	UNIT	Conditions	Min	Max
Breakdown Voltage	V_R	V	$I_R=100\mu\text{A}$	100	
Forward Voltage	V_F	V	$I_F=100\text{mA}$		1.00
Reverse Leakage Current	I_{R1}	nA	$V_R=20\text{V}$		25
	I_{R2}	nA	$V_R=75\text{V}$		200
Capacitance	C	pF	$V_R=0\text{V}, f=1\text{MHz}$		4
Reverse Recovery Time	T_{rr}	ns	$I_F=I_R=10\text{mA}, I_{rr}=0.1*I_R,$ $R_L=100\Omega$		4



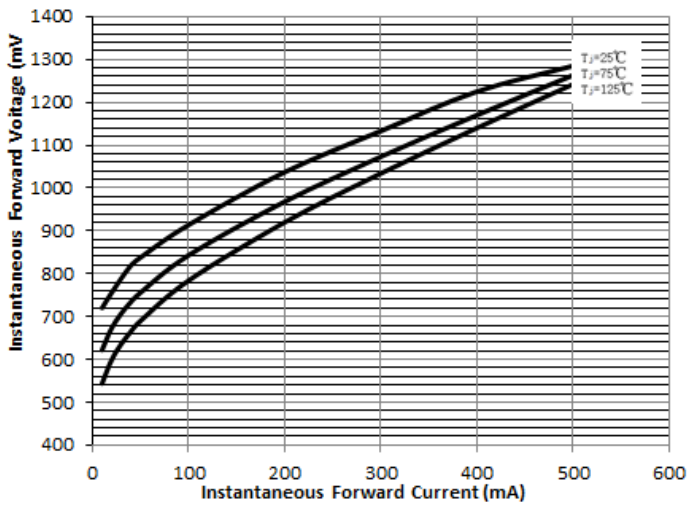
1N4448W

Ordering Information (Example)

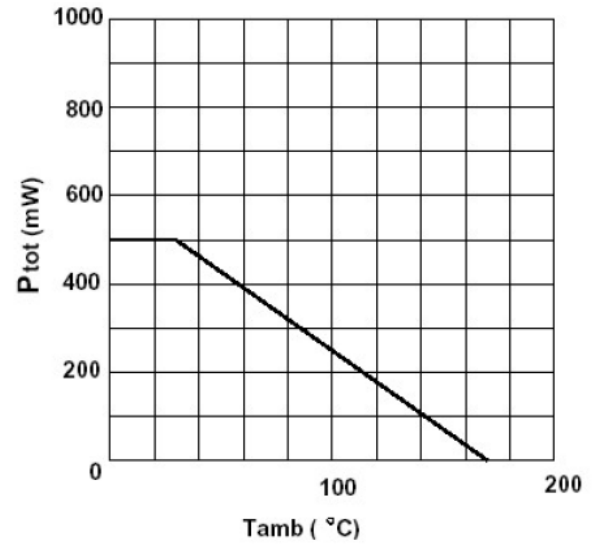
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
1N4448W	F2	Approximate 0.011	3000	30000	120000	7" reel

Characteristics (Typical)

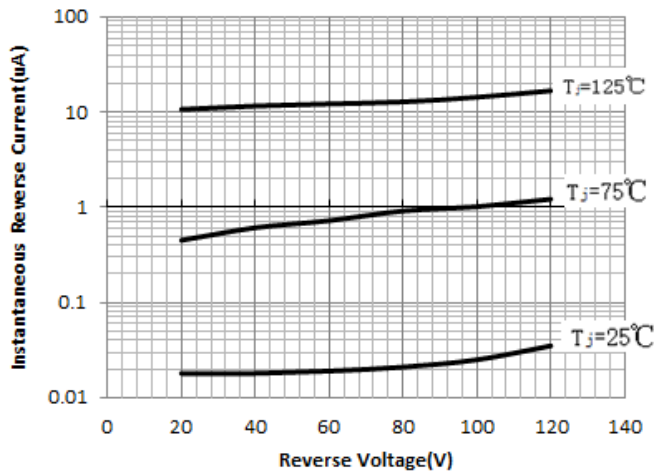
Typical Instantaneous Forward Characteristics



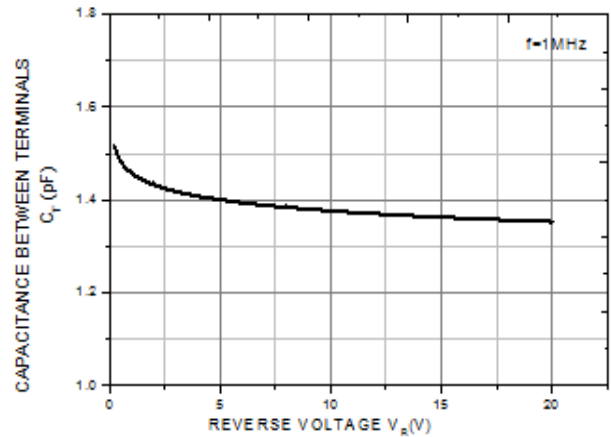
Admissible power dissipation versus ambient temperature



Typical Reverse Characteristics



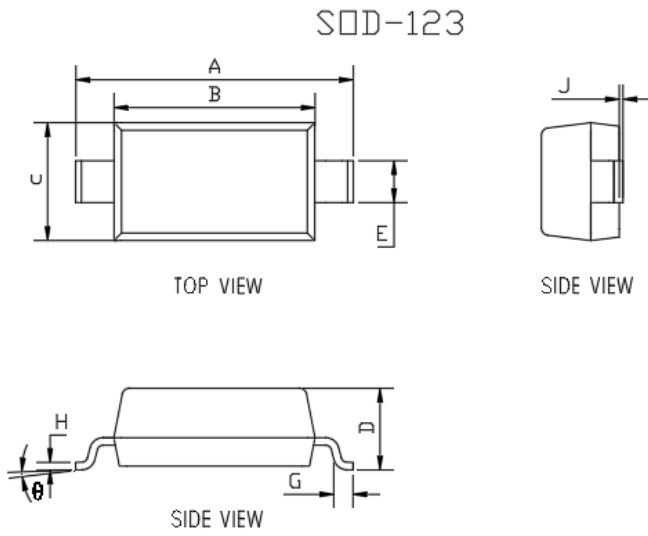
Capacitance Characteristics





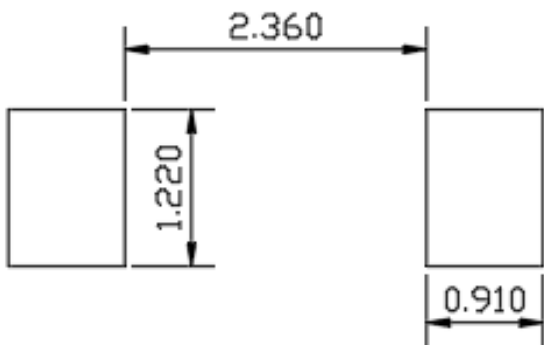
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■ Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.140	0.152	3.550	3.850
B	0.100	0.112	2.550	2.850
C	0.055	0.071	1.400	1.800
D	0.037	0.053	0.950	1.350
E	0.020	0.028	0.510	0.710
G	0.006	0.018	0.150	0.450
H	0.003	0.010	0.080	0.250
J	0.000	0.006	0.000	0.150
θ	0	8°	0	8°

■ Soldering Footprint



UNIT : mm

SUGGESTED SOLDER PAD LAYOUT



1N4448W

Disclaimer

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