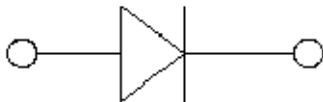


Small-Signal Fast Switching Diodes



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 μs 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	$R_{\theta JA}$	$^\circ\text{C/W}$		315

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

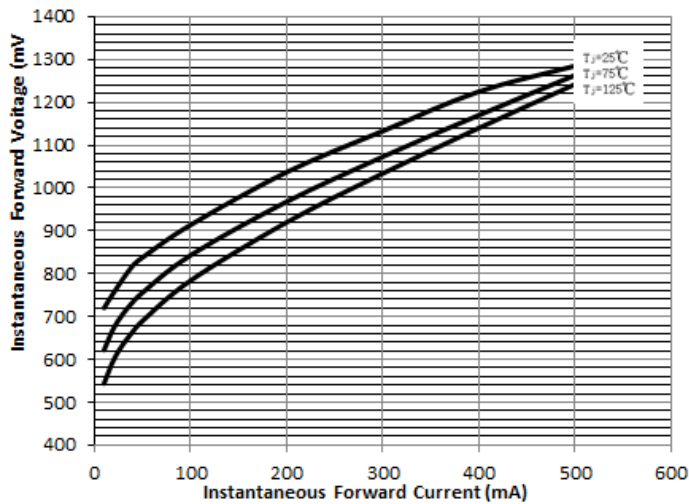
PARAMETER	Symbol	UNIT	Conditions	Min	Max
Breakdown Voltage	V_R	V	$I_R=100\mu\text{A}$	100	
Forward Voltage	V_F	V	$I_F=100\text{mA}$		1.00
Reverse Leakage Current	I_{R1}	nA	$V_R=20\text{V}$		25
	I_{R2}	nA	$V_R=75\text{V}$		200
Capacitance	C	pF	$V_R=0\text{V}, f=1\text{MHz}$		4
Reverse Recovery Time	T_{rr}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

■ Ordering Information (Example)

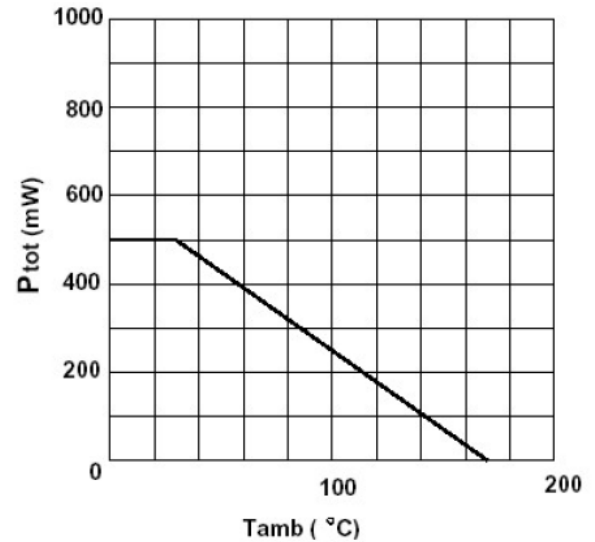
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
1N4448W	F2	Approximate 0.011	3000	30000	120000	7" reel

■ Characteristics (Typical)

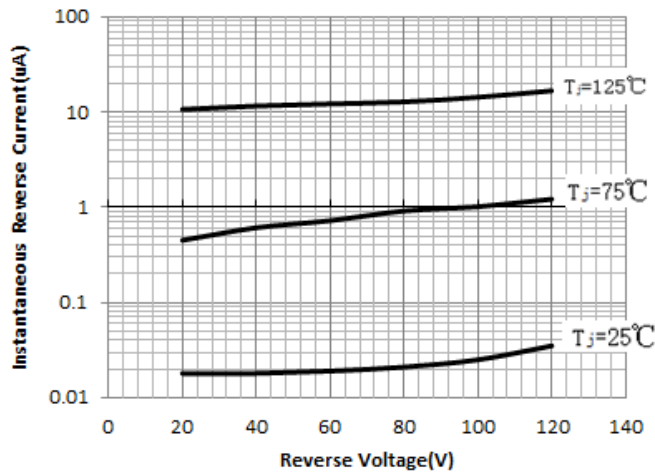
Typical Instantaneous Forward Characteristics



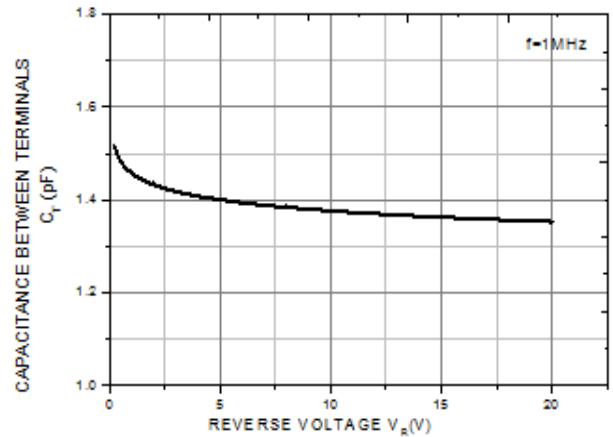
Admissible power dissipation versus ambient temperature



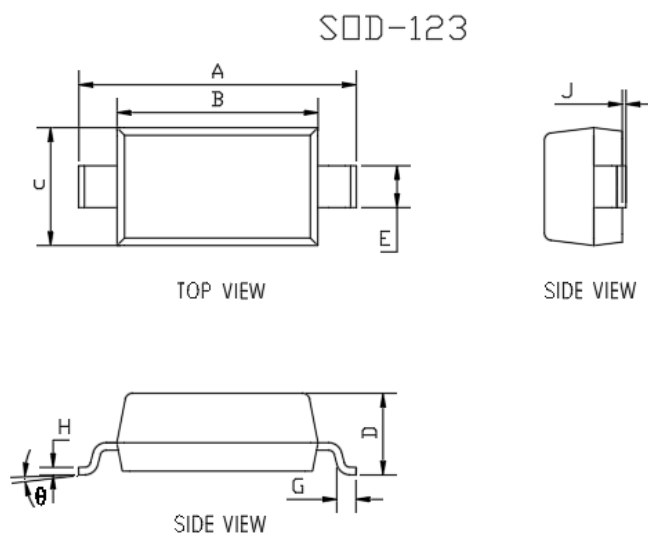
Typical Reverse Characteristics



Capacitance Characteristics

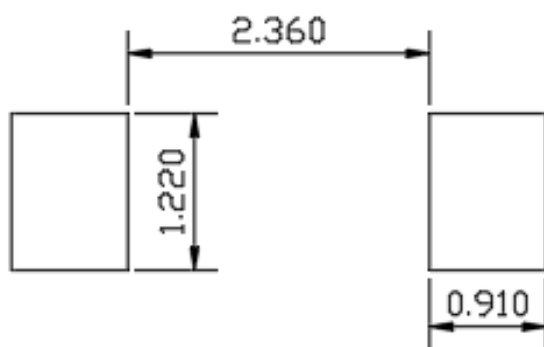


■ Outline Dimensions



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

Disclaimer

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