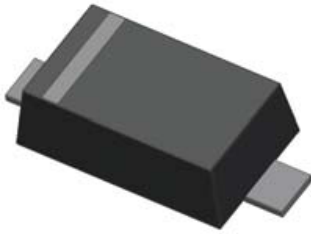


Small-Signal Fast Switching Diodes

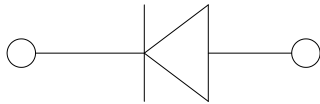


Features

- V_R 75V
- $I_{F(AV)}$ 150mA

Typical Applications

- Extreme fast switches



Mechanical Data

- **Package:** SOD523
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** E1

■ 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		75
Peak forward surge current	I_{FSM}	A	Pulse width=1 us	2
Repetitive peak forward current	I_{FRM}	mA		300
Average forward current	I_{FAV}	mA		150
Power dissipation	P_{tot}	mW		200
Maximum junction temperature	T_j	$^\circ\text{C}$		-55 to +150
Storage temperature range	T_{stg}	$^\circ\text{C}$		-55to +150

■ 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	
			$I_R=5\mu\text{A}$	75	
Forward Voltage	V_F	V	$I_F=10\text{mA}$		1.0
Reverse Leakage Current	I_{R1}	nA	$V_R=20\text{V}$		25
	I_{R2}	μA	$V_R=75\text{V}$		5
Capacitance	C	pF	$V_R=0\text{V}, f=1\text{MHz}$		4
Reverse Recovery Time	T_{rr}	ns	$I_F=10\text{mA}, I_R=60\text{mA}, R_L=100\Omega, I_{RR}=1\text{mA}$		4



1N4148WT

Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
1N4148WT	F1	Approximate 0.0025	3000	30000	180000	7" reel

Characteristics (Typical)

Fig.1 Total Capacitance

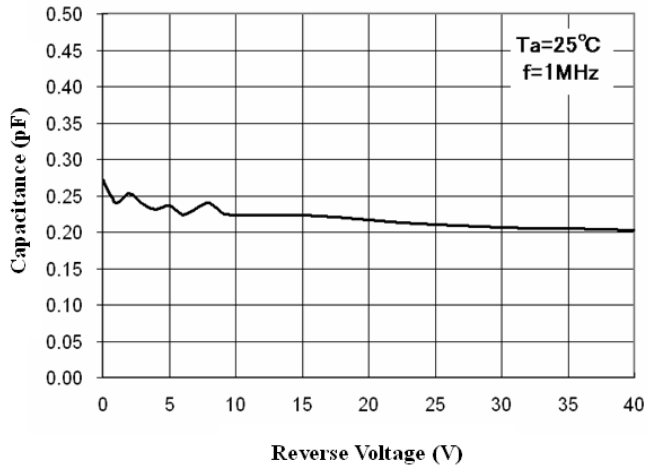


Fig.2 Forward Voltage vs Ambient Temperature

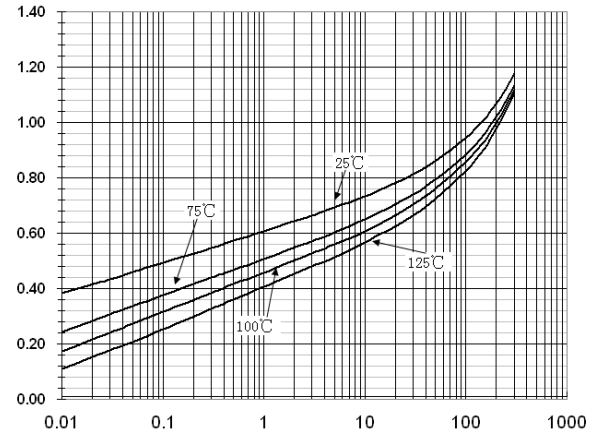


Fig.3 Power Derating Curve

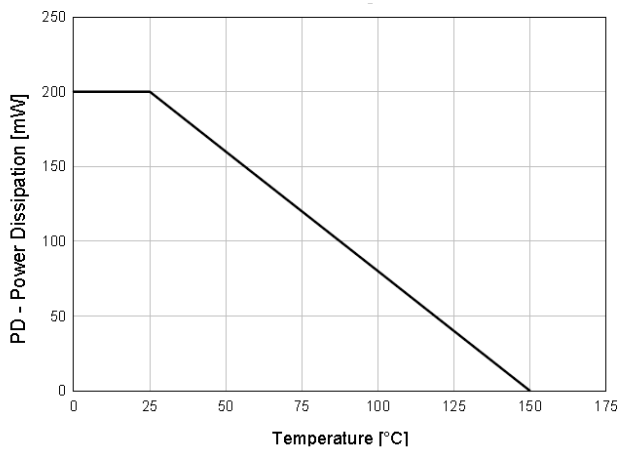
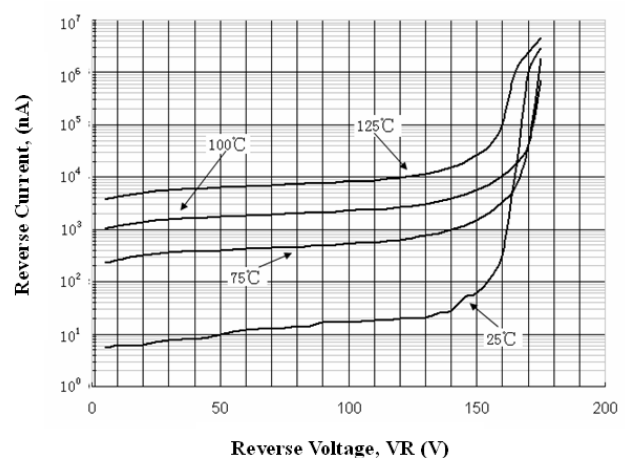
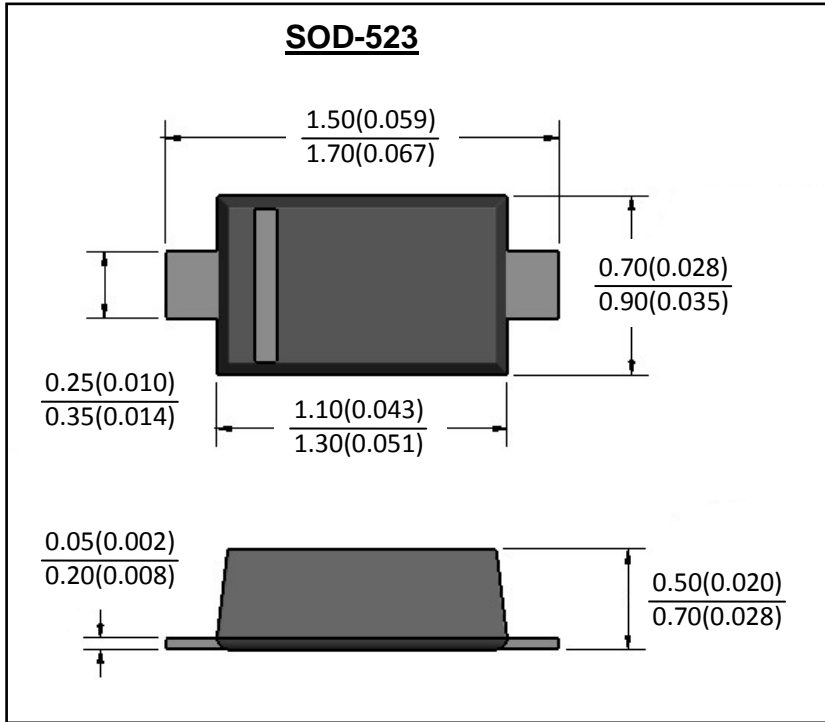


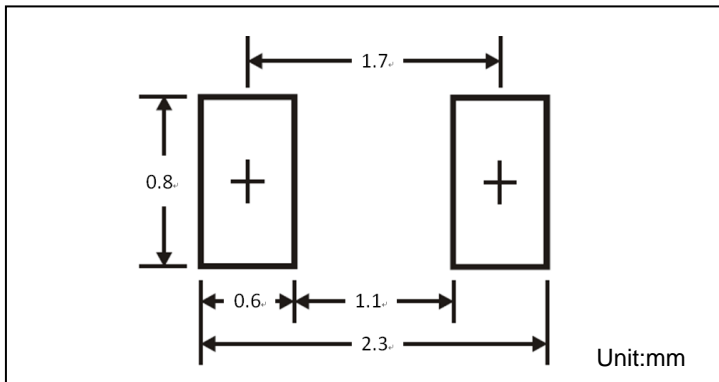
Fig.4 Reverse Current vs Reverse Voltage



■ Outline Dimensions



■ Soldering Footprint





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