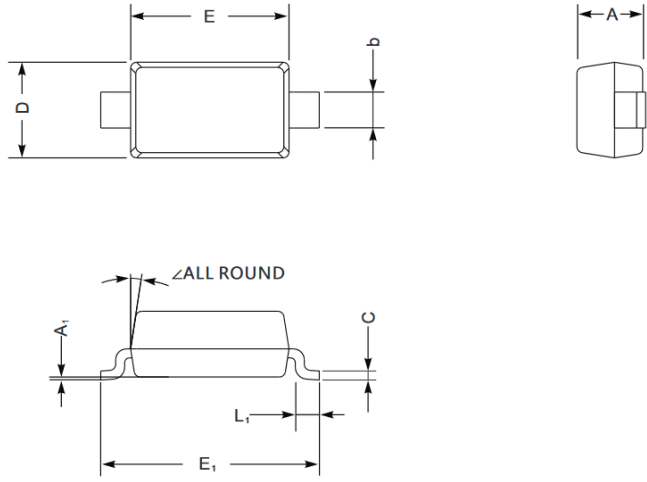


Fast Switching SMD Diodes

Primary characteristics		
Parameter	Value	Unit
Peak repetitive reverse voltage	75	V
Power dissipation	410	mW

Features

- **SOD-123** case for easy automatic insertion.
- Pb-Free and **RoHS** Compliant
- Fast Switching Speed
- Plastic material – UL Recognition Flammability Classification 94V-0
- Terminals: plated leas solderable per MIL-STD-202, Method 208
- Polarity: cathode band

Case dimensions									
									
SOD-123									
Unit	A	C	D	E	E ₁	L ₁	b	A ₁	∠
mm	1.35 MAX	0.11 TYP	1.55 ±0.15	2.7 ±0.15	3.7 ±0.15	0.25 MIN	0.55 TYP	0.1 MAX	8° MAX

Absolute maximum ratings (T _a = 25°C)			
Parameter	Symbol	Value	Unit
Non-repetitive peak reverse voltage	V _{RM}	100	V
Peak repetitive reverse voltage	V _{RRM}	75	V
Working peak reverse voltage	V _{RWM}		
DC blocking voltage	V _R		
RMS reverse voltage	V _{R(RMS)}	53	V
Forward continuous current ¹⁾	I _{FM}	300	mA
Average rectified output current ¹⁾	I _O	150	mA
Non-repetitive peak forward surge current	t=1.0μs	I _{FSM}	2.0
	t=1.0s	I _{FSM}	1.0
Power dissipation ¹⁾	P _D	410	mW
Thermal resistance, junction to ambient air ¹⁾	R _{θJA}	315	K/W
Operating and storage temperature range	T _J , T _{STG}	-65 ~ 150	°C

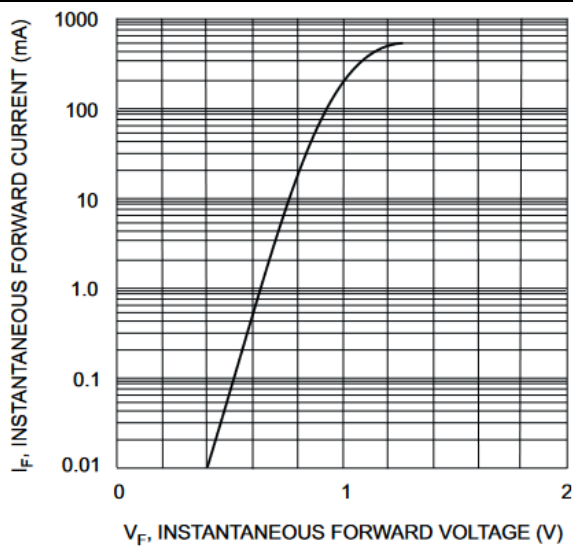
Note 1) Valid provided that terminals are kept at ambient temperature

Electrical characteristics ($T_a = 25^\circ\text{C}$)

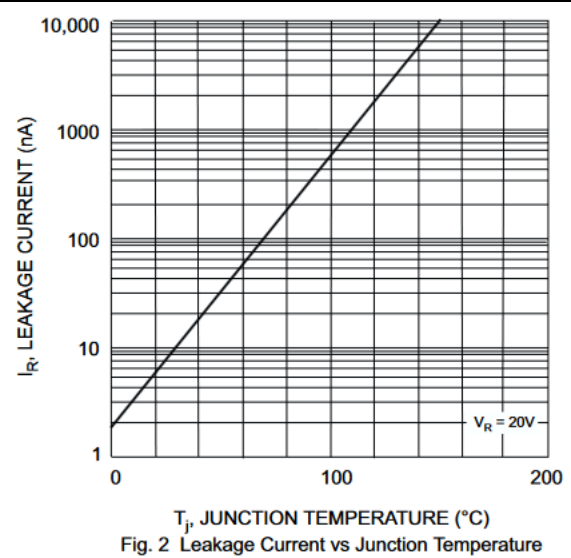
Parameter		Symbol	Value	Unit
Forward voltage drop	$I_F=10\text{mA}$	V_{FM}	1.0	V
Peak reverse leakage current	$V_R=20\text{V}$	I_{RM}	25	nA
	$V_R=75\text{V}$		5.0	μA
Typical junction capacitance ($V_R=0\text{V DC}$, $f=1.0\text{MHz}$)		C_j	2.0	pF
Reverse recovery time ²⁾		t_{rr}	4.0	ns

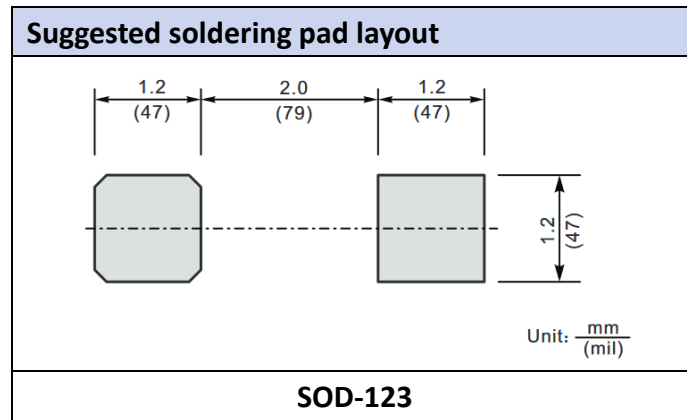
Note 2) Measured with $I_F=I_R=10\text{mA}$, $I_{RR}=0.1 \times I_R$, $R_L=100\Omega$

Forward characteristics



Leakage current vs. junction temperature





Ordering information			
Part number	Package	Shipping quantity / reel	Dimensions
1N4148W	SOD-123	3000 pcs / reel	---

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