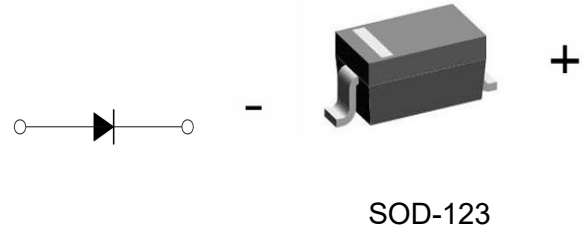


Schottky Barrier Diode

Parameter	Value	Unit
V_R	20~40	V
I_F	350	mA



SOD-123

Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Capacitance

Absolute Maximum Ratings (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value			Unit
		SD103AW	SD103BW	SD103CW	
V_{RRM}	Peak Repetitive Reverse Voltage	40	30	20	V
V_{RWM}	Working Peak Reverse Voltage				
$V_{R(RMS)}$	RMS Reverse Voltage	28	21	14	V
I_{FM}	Forward Continuous Current	350			mA
I_{FSM}	Non-repetitive Peak Forward Surge Current@t=8.3ms	2			A
P_D	Power Dissipation	400			mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	250			°C/W
T_J	Junction Temperature	125			°C
T_{stg}	Storage Temperature	-55~+150			°C

Electrical Characteristics (Ta=25°C unless otherwise noted)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=100\mu A$ SD103AW	40			V
		SD103BW	30			
		SD103CW	20			
Reverse current	I_R	$V_R=30V$ SD103AW			5	μA
		$V_R=20V$ SD103BW				
		$V_R=10V$ SD103CW				
Forward voltage	V_F	$I_F=20mA$			0.37	V
		$I_F=200mA$			0.6	
Total capacitance	C_{tot}	$V_R=0V, f=1MHz$		50		pF
Reverse recovery time	t_{rr}	$I_F=I_R=200mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$		10		ns

Typical Characteristics

Fig. 1 Forward Characteristics

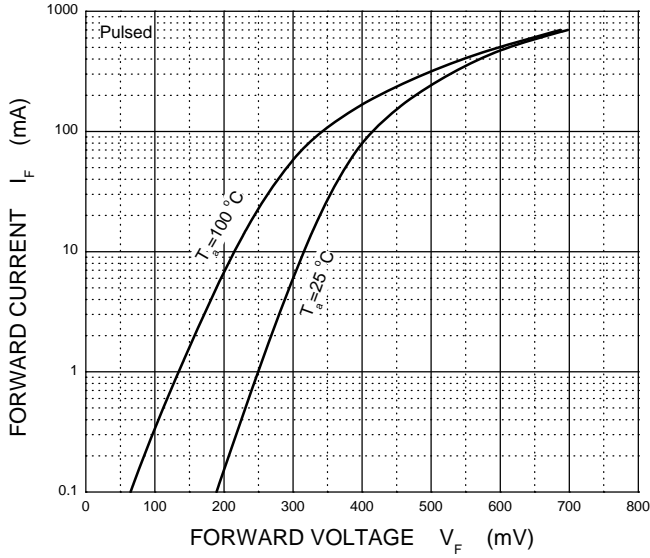


Fig. 2 Reverse Characteristics

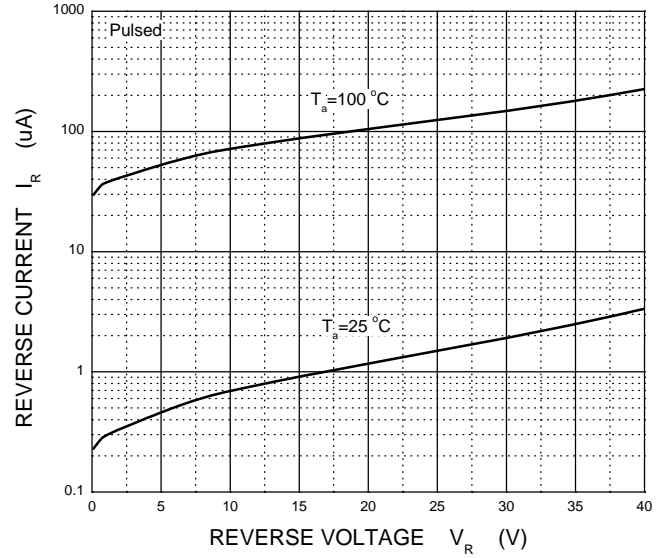


Fig. 3 Capacitance Characteristics

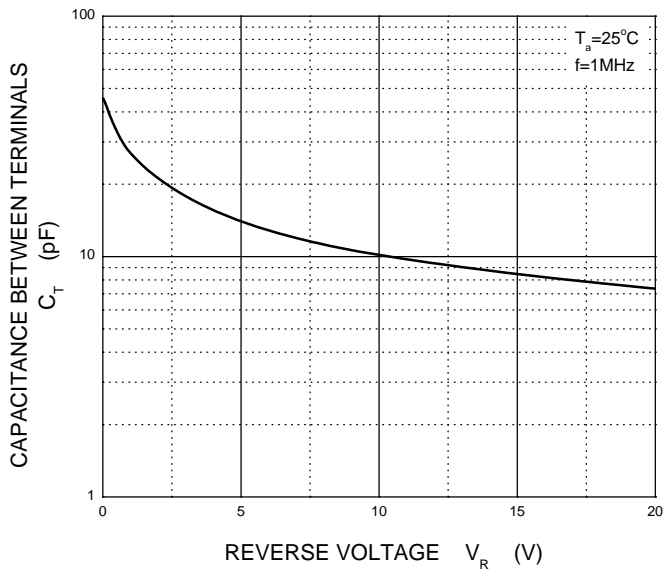
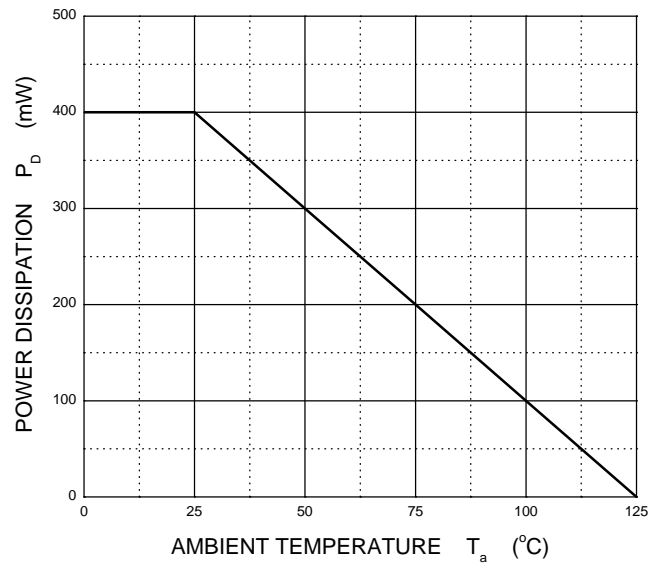
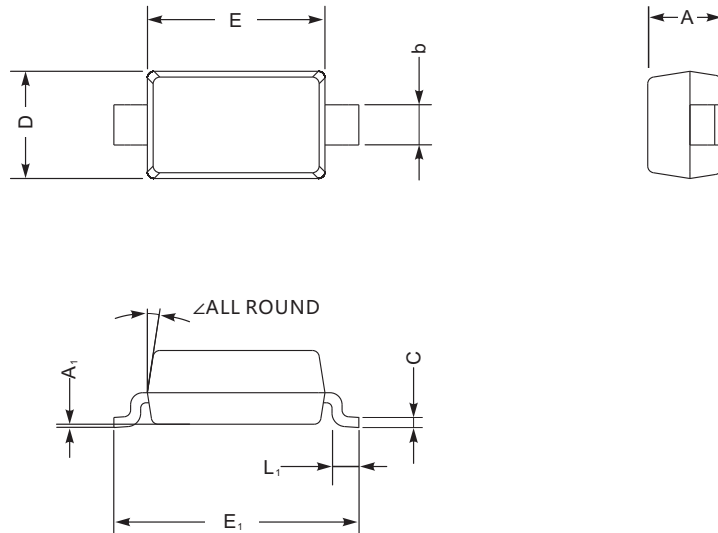


Fig. 4 Power Derating Curve



Package Outlines (Units: mm)

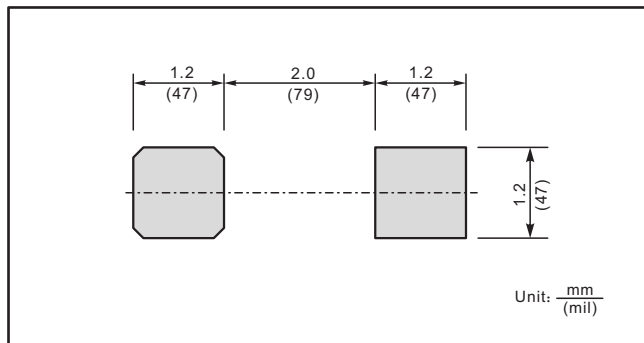
Plastic surface mounted package; 2 leads



SOD-123 mechanical data

UNIT		A	C	D	E	E ₁	L ₁	b	A ₁	∠
mm	max	1.3	0.22	1.8	2.8	3.9	0.45	0.7	0.2	9°
	min	0.9	0.09	1.5	2.5	3.6	0.25	0.5	—	
mil	max	51	8.7	71	110	154	18	28	8	
	min	35	3.5	59	98	142	10	20	—	

The recommended mounting pad size



Marking

Type number	Marking code
SD103AW	S4
SD103BW	S5
SD103CW	S6

***Important Usage Information and Disclaimer**

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