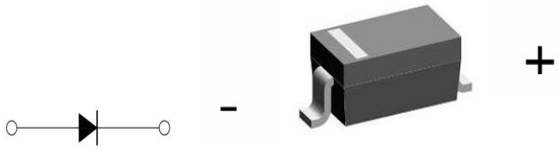
Schottky Barrier Diode

Parameter	Value	Unit
V_R	20~40	V
I_F	350	mA



SOD-323

Features

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

Absolute Maximum Ratings(Ta=25℃unless otherwise noted)

Symbol	Parameter	Value			Unit
		SD103AWS	SD103BWS	SD103CWS	
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	1.5			A
P_D	Power Dissipation	200			mW
$R_{\Theta JA}$	Thermal Resistance from Junction to Ambient	500			℃/W
T_J	Junction Temperature	125			℃
T_{stg}	Storage Temperature	-55~+150			℃

Electrical Characteristics(Ta=25℃unless otherwise noted)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	I_R=100μA	SD103AWS	40			V
			SD103BWS	30			
			SD103CWS	20			
Reverse current	I_R	V_R=30V	SD103AWS			5	μA
		V_R=20V	SD103BWS				
		V_R=10V	SD103CWS				
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×I_R, R_L=100Ω			10		ns

Typical Characteristics

Fig. 1 Forward Characteristics

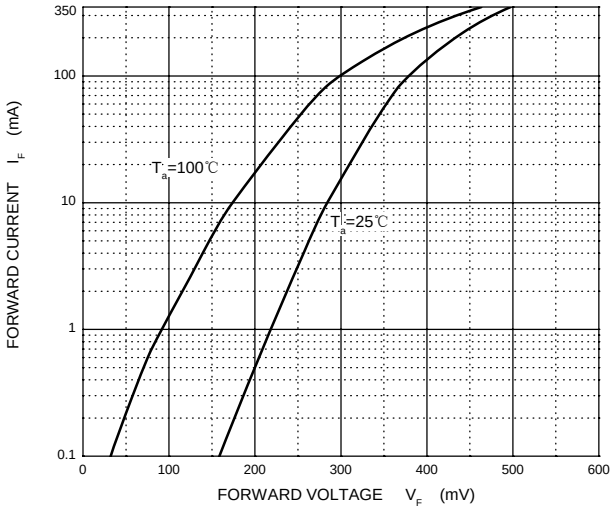


Fig. 2 Reverse Characteristics

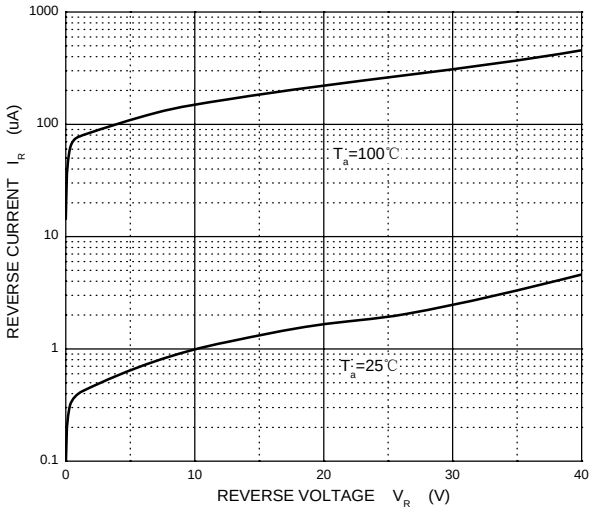


Fig. 3 Capacitance Characteristics

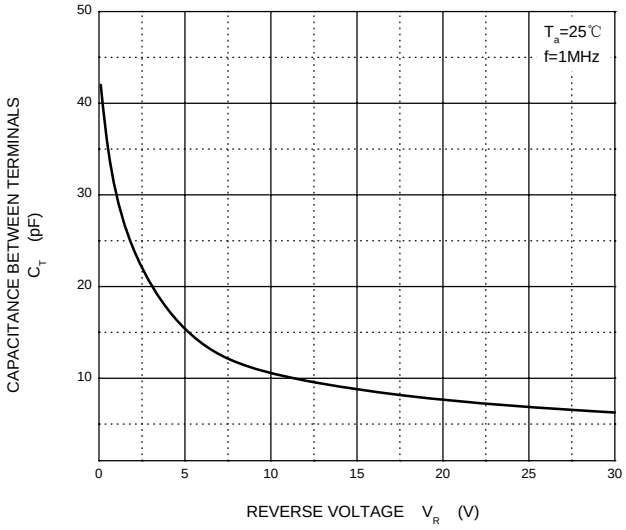
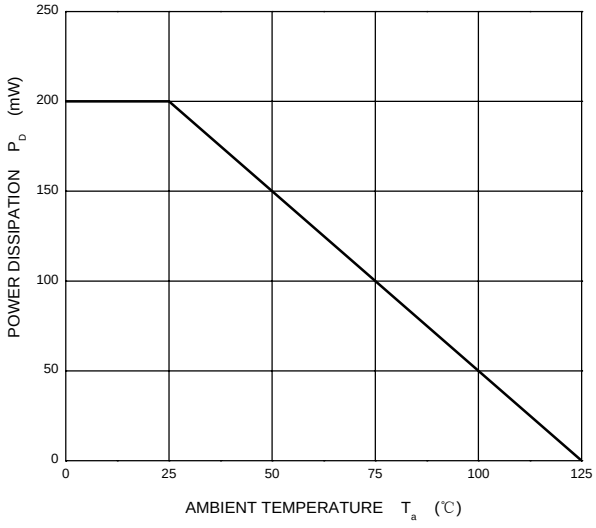
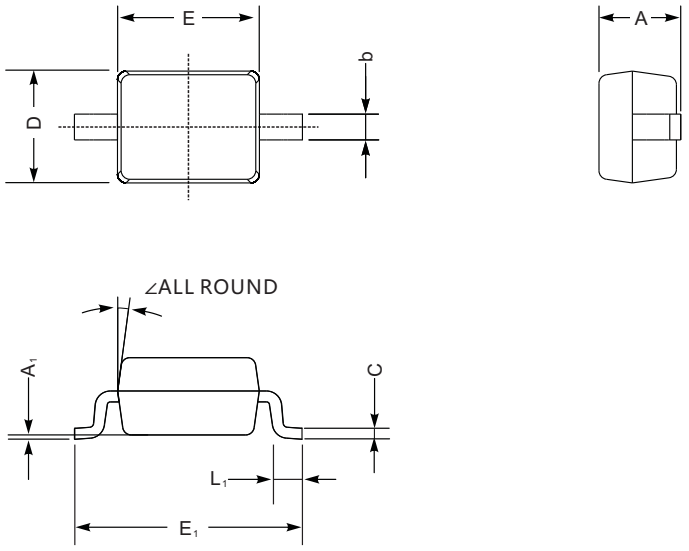


Fig. 4 Power Derating Curve



Package Outlines (Units: mm)

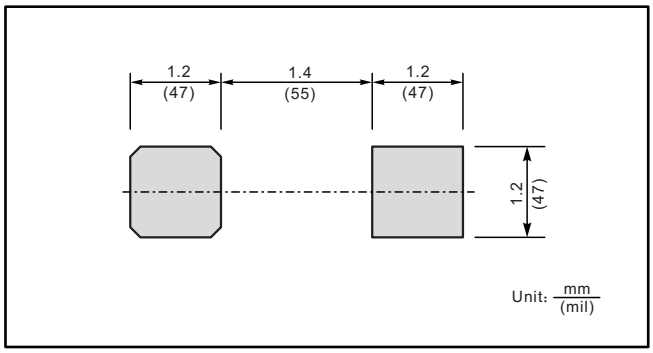
Plastic surface mounted package; 2 leads



SOD-323 mechanical data

UNIT		A	C	D	E	E_1	b	L_1	A_1	∠
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	63	100	9.8	7.9	—	

The recommended mounting pad size



Marking

Type number	Marking code
SD103AWS	S4
SD103BWS	S5
SD103CWS	S6

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