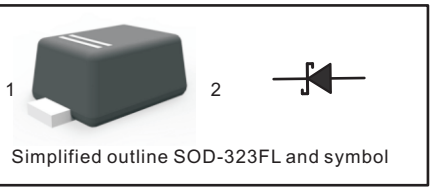
Schottky Barrier Diode

FEATURES

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Simplified outline SOD-323FL and symbol

MECHANICAL DATA

- **Case: SOD-323FL**
- **Terminals: Solderable per MIL-STD-750, Method 2026**
- **Approx. Weight: 4.5mg / 0.00016oz**

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	SD103AWSFL	SD103BWSFL	SD103CWSFL	Units
Peak Repetitive Reverse Voltage	V_{RRM}	40	30	20	V
RMS reverse voltage	V_{RMS}	28	21	14	V
Working Peak Reverse Voltage	V_{DC}	40	30	20	V
Peak Forward Surge Current, 1.0s single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	13			A
Maximum Instantaneous Forward Voltage I_F=20mA	V_F	0.37			V
Maximum Instantaneous Forward Voltage I_F=200mA	V_F	0.60			V
Power Dissipation	P_D	200			mW
Reverse current SD103AWSFL,V_R=30V	I_R	5	–	–	uA
Reverse current SD103BWSFL,V_R=20V	I_R	–	5	–	uA
Reverse current SD103CWSFL,V_R=10V	I_R	–	–	5	uA
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	300			°C/W
Reverse voltage I_R=100uA SD103AWSFL	$V_{(BR)R}$	40			V
Reverse voltage I_R=100uA SD103BWSFL	$V_{(BR)R}$	30			V
Reverse voltage I_R=100uA SD103CWSFL	$V_{(BR)R}$	20			V
Reverse recovery time I_F=I_R=200mA,Irr=0.1xI_R,R_L=100Ω	trr	10			ns
Forward Continuons Current	I_{FM}	350			mA
Total capacitance V_R=0V.f=1MHz	C_{tot}	50			pF
Junction temperature	T_j	125			℃
Storage temperature	T_{stg}	-55 ~ +150			℃

Fig.1 Power Derating Curve

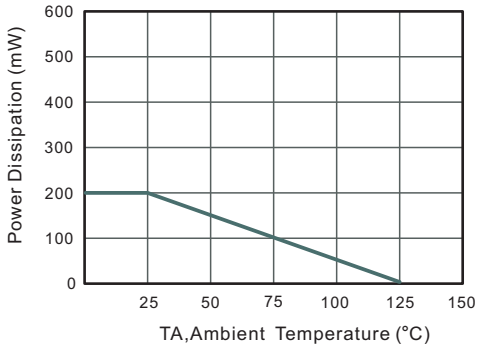


Fig.2 Typical Reverse Characteristics

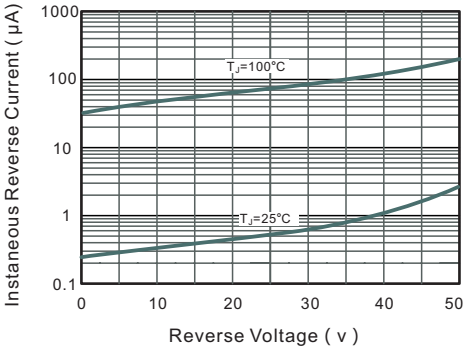


Fig.3 Forward Characteristics

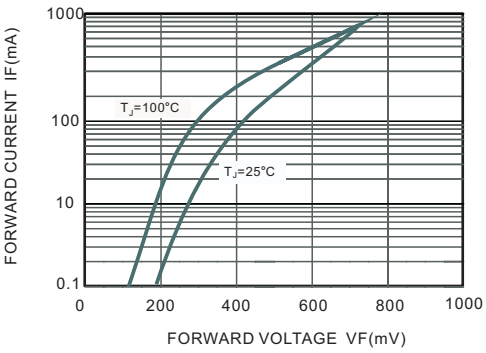


Fig.4 Maximum Non-Repetitive Peak Forward Surage Current

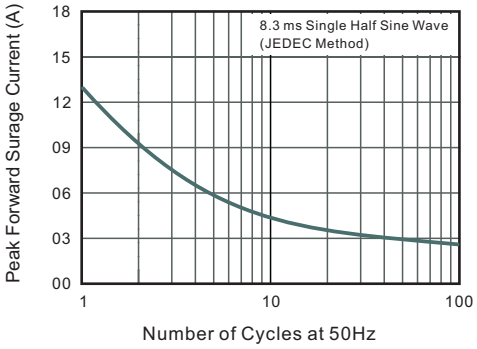


Fig.5 Typical Junction Capacitance

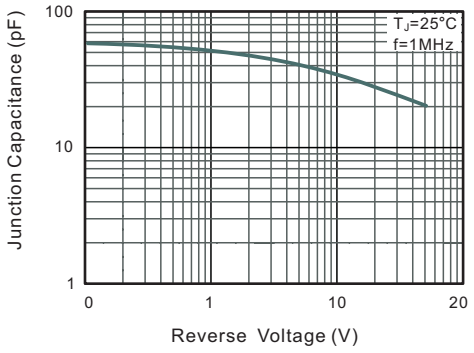
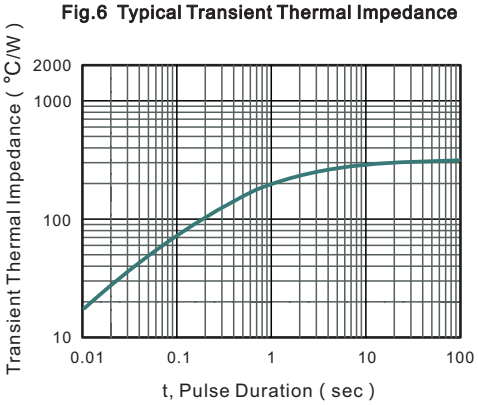
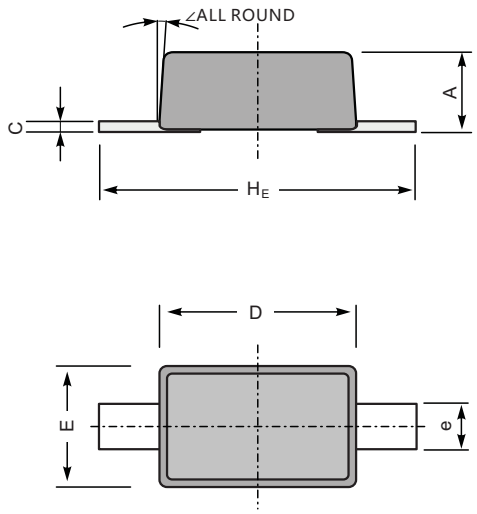


Fig.6 Typical Transient Thermal Impedance



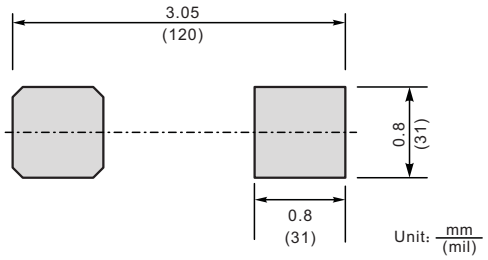
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads SOD-323FL



UNIT		A	C	D	E	e	H_E	∠
mm	max	1.0	0.25	1.8	1.35	0.4	2.7	8°
	min	0.8	0.05	1.6	1.15	0.25	2.3	
mil	max	39	9.8	71	53	18	106	
	min	31	2.0	63	45	10	91	

The recommended mounting pad size



Marking

Type number	Marking code
SD103AWSFL	S4
SD103BWSFL	S5
SD103CWSFL	S6