

SCHOTTKY BARRIER DIODE

FEATURES

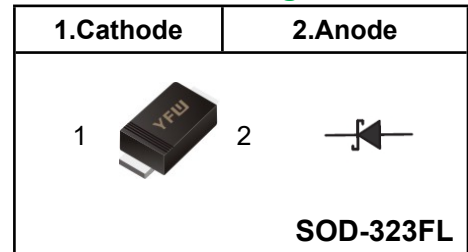
- ◆ Low Forward Voltage Drop
- ◆ Guard Ring Construction for Transient Protection
- ◆ Negligible Reverse Recovery Time
- ◆ Low Capacitance
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

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



Pinning



Marking Code

SD103AWSFL	S4
SD103BWSFL	S5
SD103CWSFL	S6

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, 8.3ms 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
	$I_F=200mA$		0.60			
Power Dissipation		P_D	200			mW
Reverse current	SD103AWSFL, $V_R=30V$	I_R	5	-	-	uA
	SD103BWSFL, $V_R=20V$		-	5	-	
	SD103CWSFL, $V_R=10V$		-	-	5	
Thermal Resistance, Junction to Ambient Air		$R_{\theta JA}$	300			°C/W
Reverse voltage $I_R=100uA$	SD103AWSFL	$V_{(BR)R}$	40			V
	SD103BWSFL		30			
	SD103CWSFL		20			
Reverse recovery time $I_F=I_R=200mA, I_{rr}=0.1xI_R, R_L=100\Omega$		T_{rr}	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			°C
Storage temperature		T_{stg}	-55 ~ +150			°C

Fig.1 Power Derating Curve

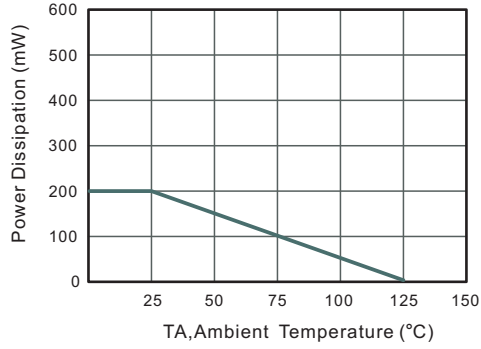


Fig.2 Typical Reverse Characteristics

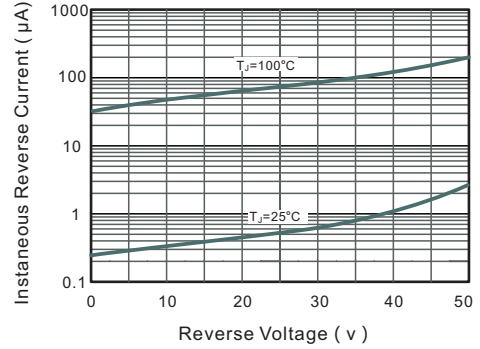


Fig.3 Forward Characteristics

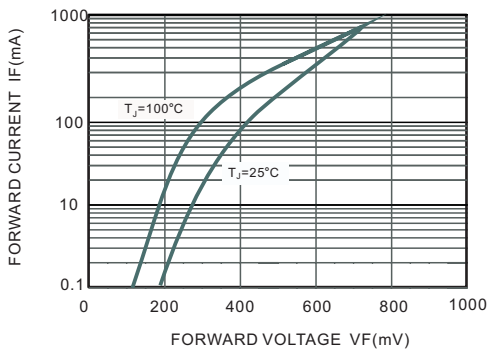


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current

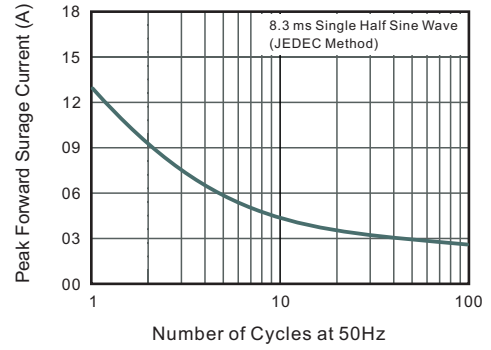


Fig.5 Typical Junction Capacitance

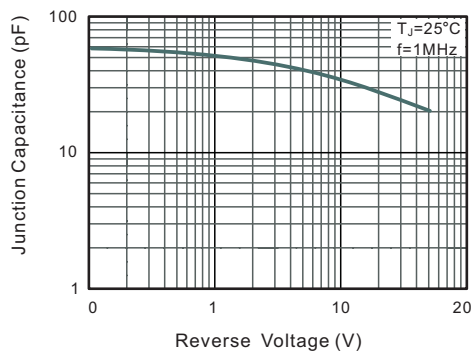
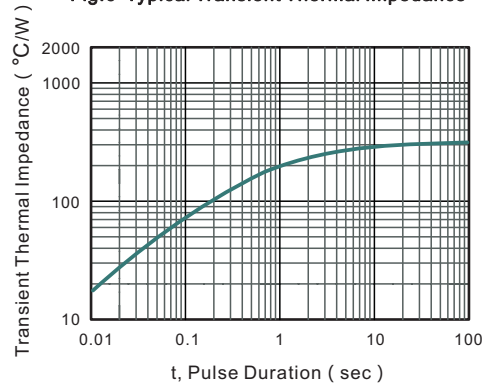
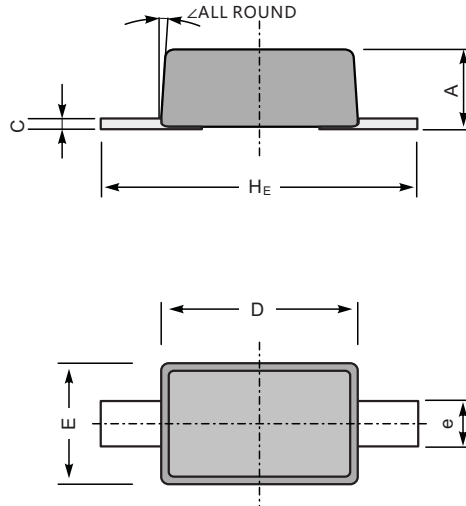


Fig.6 Typical Transient Thermal Impedance



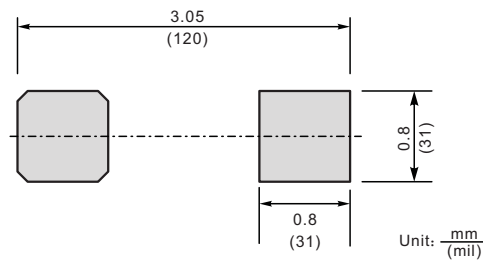
Package Outline SOD-323FL

Plastic surface mounted package; 2 leads



UNIT		A	C	D	E	e	H _E	\angle
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



Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOD-323FL	Tape/Reel, 7" reel	3000	EIA-481-1