SD103AWS THRU SD103CWS

Reverse Voltage 20-40 Volts Forward Current - 0.35 Ampere

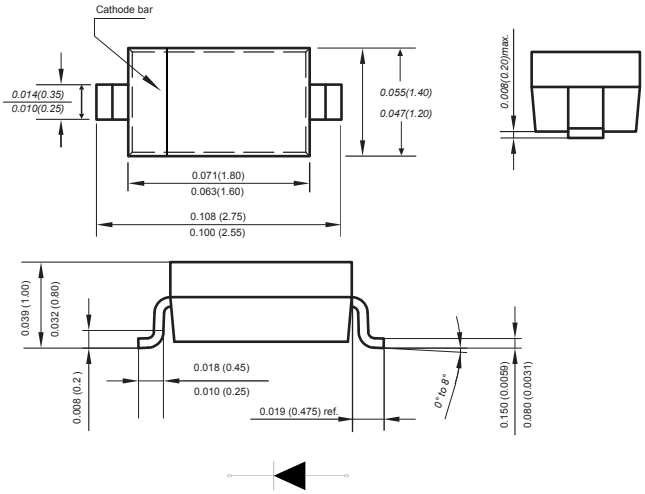
SCHOTTKY DIODES

Features

SOD-323

RoHS COMPLIANT

- Low forward voltage drop
- Guard ring construction for transient protection
  Negligible reverse recovery time



Dimensions in inches and (millimeters)

Mechanical Data

Case : JEDEC SOD-323 molded plastic body Terminals :
Plated leads solderable per MIL-STD-750, Method 2026
Polarity : Polarity symbols marked on case
Weight : 0.0007 ounce, 0.02 grams
Marking: SD103AWS:S4, SD103BWS:S5, SD103CWS:S6

Absolute Maximum Ratings at 25 °C

PARAMETER	SYMBOLS	SD103AWS	SD103BWS	SD103CWS	UNITS
Peak repetitive peak reverse voltage Working peak reverse voltage DC Blocking voltage	V_{RRM} V_{RMS} V_{DC}	40	30	20	VOLTS
RMS Reverse voltage	$V_{R(RMS)}$	28	21	14	V
Forward continuous current	I_{FM}	350			mA
Repetitive peak forward current at≤1.0s	I_{FRM}	1.5			A
Power dissipation	Pd	200			mW
Thermal resistance junction to ambient	$R_{\Theta JA}$	300			℃/W
Storage temperature	T_{STG}	-55 to +150			℃

Characteristics at Ta= 25 °C

PARAMETER		SYMBOLS	Min.	Typ.	Max.	Unit	Conditions
Reverse break down voltage Reverse	SD103AWS SD103BWS SD103CWS	$V_{(BR)R}$	40 30 20			V	IR=100uA
Fowrard voltage		V_F			0.37 0.60	V	I_F=20mA I_F=200mA
Reverse current	SD103AWS SD103BWS SD103CWS	I_{RM}			5.0	uA	V_R=30V V_R=20V V_R=10V
Capacitance between terminals		C_T		50		pF	V_R=0V,f=1.0MHz
Reverse recovery time		t_{rr}		10		ns	I_F=I_R=200mA Irr=0.1XI_R,R_L=100 Ω

Typical Characterisitics

Fig.1 Power Derating Curve

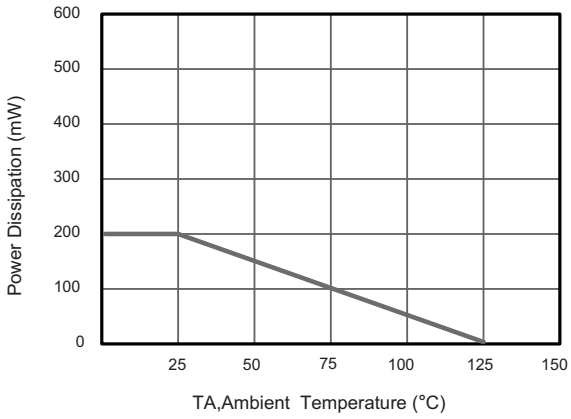


Fig.2 Typical Reverse Characteristics

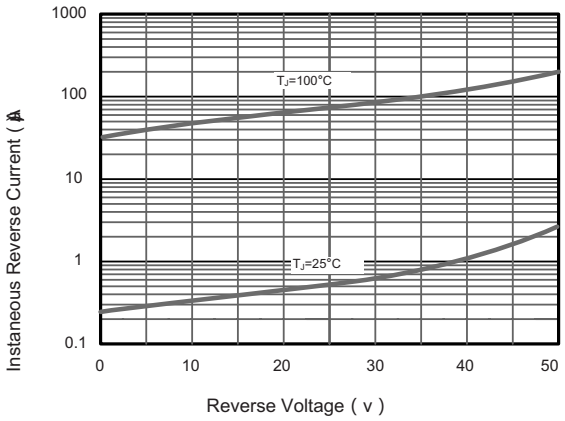


Fig.3 Forward Characteristics

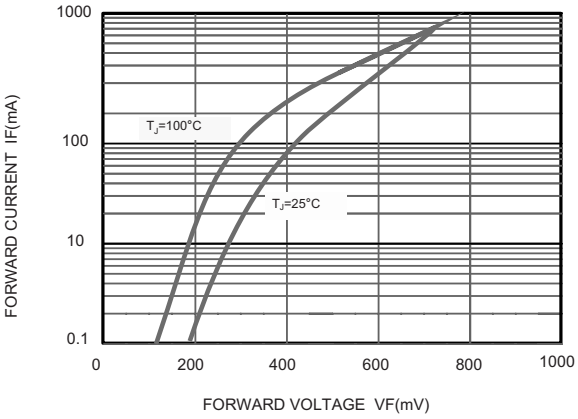


Fig.4 Maximum Non-Repetitive Peak Forward Surage Current

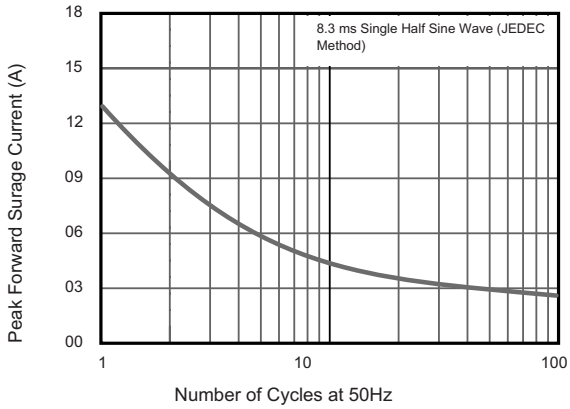


Fig.5 Typical Junction Capacitance

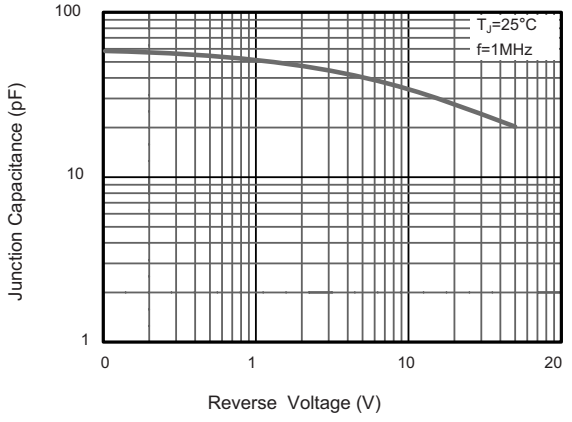
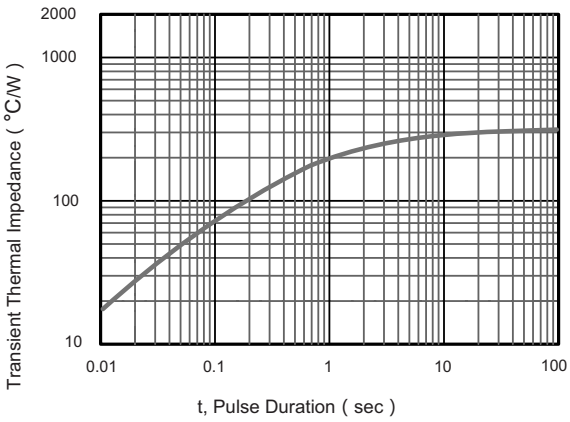
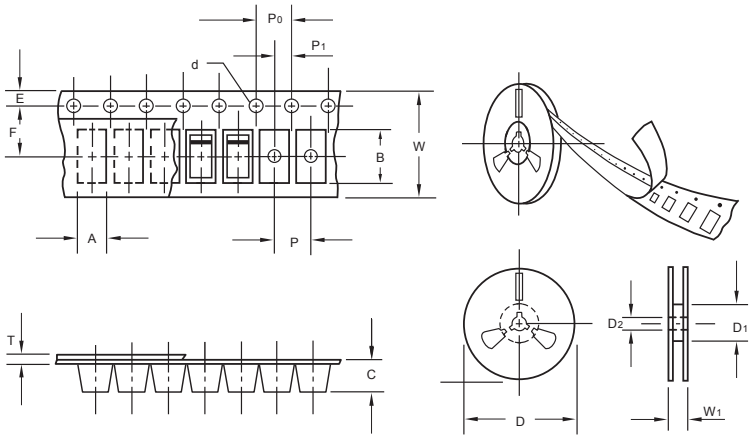


Fig.6 Typical Transient Thermal Impedance



The curve above is for reference only.

Packing information



unit:mm

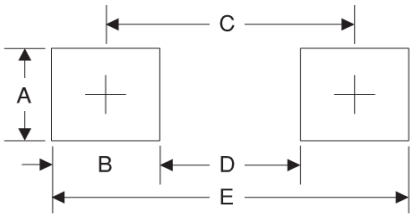
Item	Symbol	Tolerance	SOD-323
Carrier width	A	0.1	2.1
Carrier length	B	0.1	4.0
Carrier depth	C	0.1	1.60
Sprocket hole	d	0.05	1.55
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D_1	min	50.0
Feed hole diameter	D_2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	3.50
Punch hole pitch	P	0.1	4.00
Sprocket hole pitch	P_0	0.1	4.00
Embossment center	P_1	0.1	2.00
Overall tape thickness	T	0.1	0.25
Tape width	W	0.3	8.15
Reel width	W_1	1.0	10.5

Note:Devices are packed in accor dance with EIA standar RS-481-A and specifications listed above.

Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
SOD-323	7"	3,000	4.0	45,000	210*208*203	178	430*430*235	180,000	

Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	0.7	0.028
B	0.7	0.028
C	2.15	0.085
D	1.8	0.071
E	2.85	0.112