

# SD103AW-TA

## DUAL SURFACE MOUNT SCHOTTKY BARRIER DIODES

**VOLTAGE** 40 Volt **CURRENT** 200 mA

### FEATURES

- Low Forward Voltage Drop
- Common Anode Configuration
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

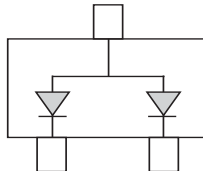
Case: SOT-23, Plastic

Terminals: Solderable per MIL-STD-750, Method 2026

Approx. Weight: 0.0003 ounces, 0.0084 grams

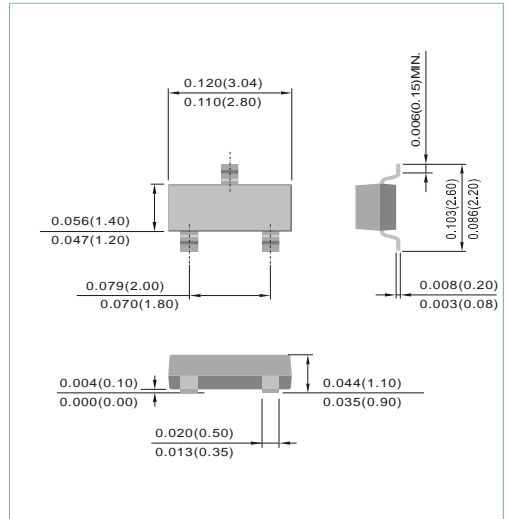
Marking Code: S6A

COMMON ANODE



**SOT-23**

Unit : inch(mm)



### MAXIMUM RATINGS @ TA=25°C unless otherwise specified

Characteristic	Symbol	Value	Units
Peak Repetitive Reverse Voltage	$V_{RRM}$	40	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Forward Continuous Current, Per Element	$I_{FM}$	200	mA
Non-Repetitive Peak Forward Surge Current @ t=8.3ms	$I_{FSM}$	1	A
Junction Temperature Range	$T_J$	-55 to +125	°C
Storage Temperature Range	$T_{STG}$	-55 to +150	°C

### THERMAL CHARACTERISTICS @ TA=25°C unless otherwise specified

Characteristic	Symbol	Value	Units
Power Dissipation (Note 1)	$P_D$	200	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	500	°C/W

NOTE : 1.Mounted on FR4 PC Board with recommended pad

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## ELECTRICAL CHARACTERISTICS @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	$I_R=500\mu\text{A}$	40	-	-	V
Forward Voltage (Note 2)	$V_F$	$I_F=10\text{mA}$ $I_F=100\text{mA}$ $I_F=200\text{mA}$	-	-	320 440 550	mV
Leakage Current (Note 2)	$I_R$	$V_R=30\text{V}$ $V_R=30\text{V}, T_J=100^\circ\text{C}$	-	-	15 3	$\mu\text{A}$ mA
Total Capacitance	$C_T$	$V_R=0\text{V}, f=1.0\text{MHz}$	-	23	50	pF

- NOTE : 1.Mounted on FR4 PC Board with recommended pad  
2.Short duration test pulse used to minimize self-heating effect  
3.No purposefully added lead

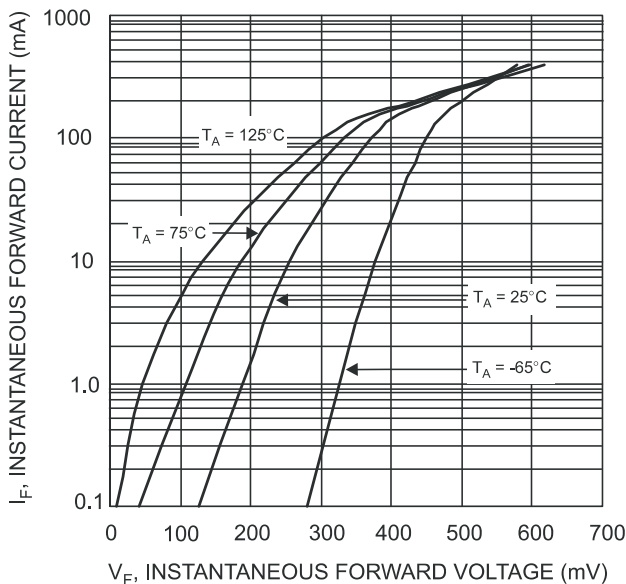


Fig. 1 Typical Forward Characteristics

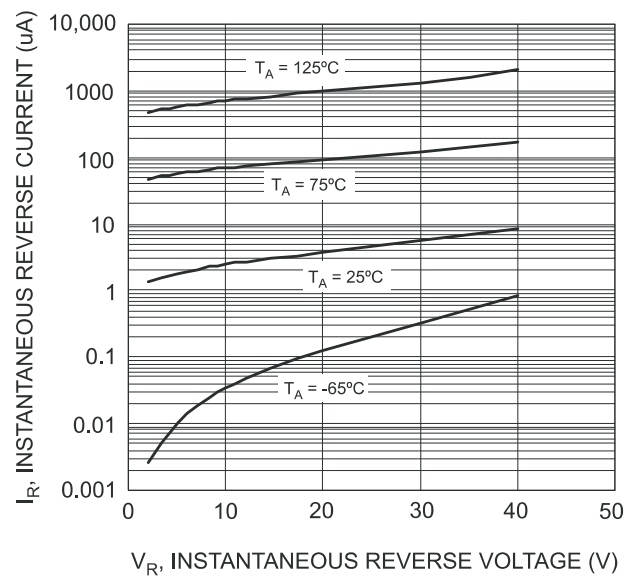


Fig. 2 Typical Reverse Characteristics, per element

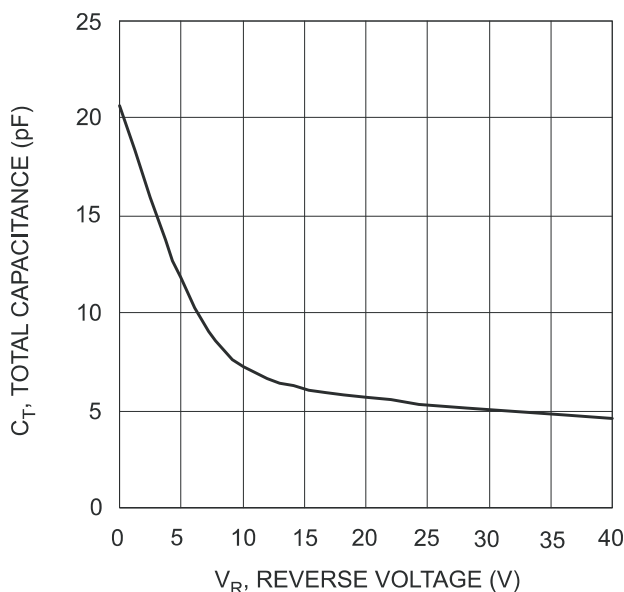


Fig. 3 Typical Total Capacitance

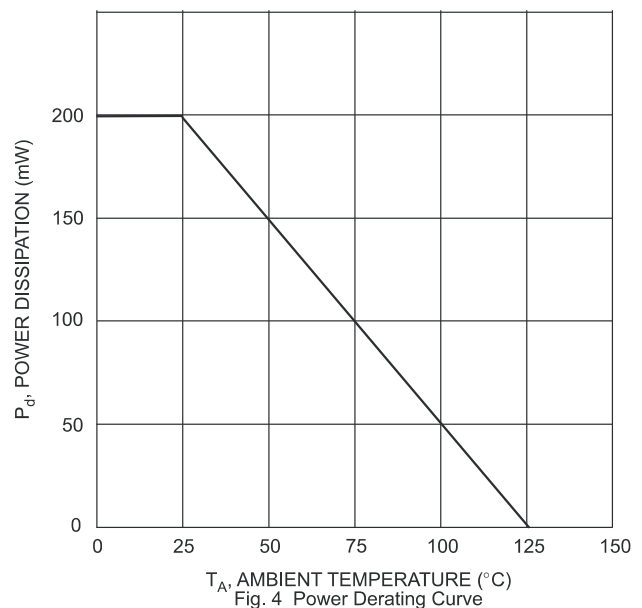


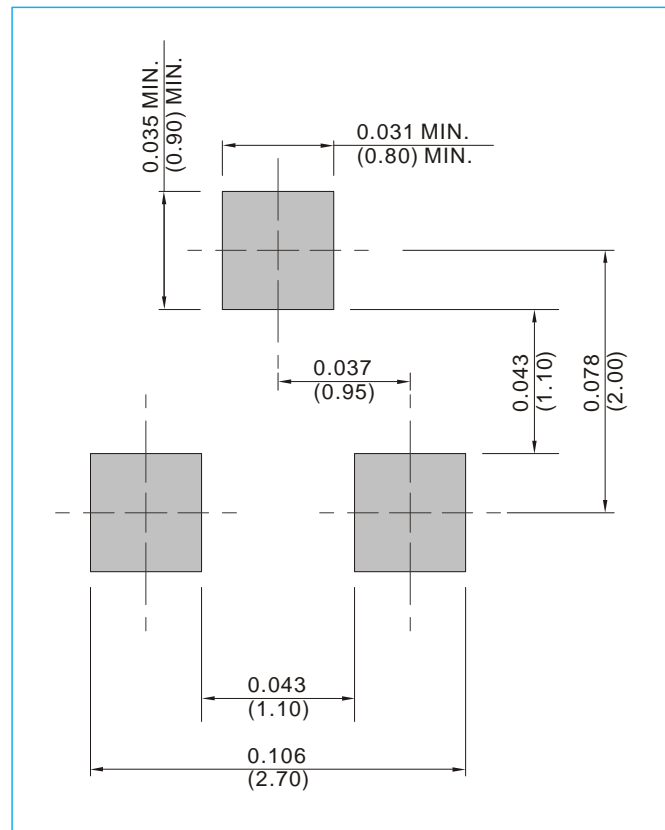
Fig. 4 Power Derating Curve

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## MOUNTING PAD LAYOUT

SOT-23

Unit : inch(mm)



## ORDER INFORMATION

- Packing information
  - T/R - 12K per 13" plastic Reel
  - T/R - 3K per 7" plastic Reel

## SD103AW-TA

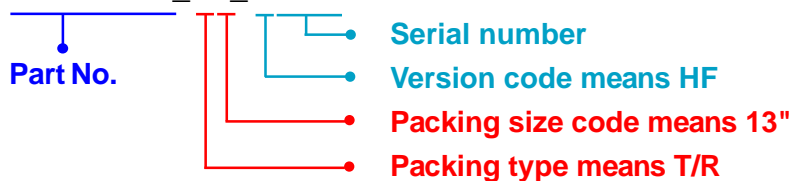
### Part No\_packing code\_Version

SD103AW-TA\_R1\_00001

SD103AW-TA\_R2\_00001

For example :

RB500V-40\_R2\_00001



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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