

## SURFACE MOUNT RECTIFIER

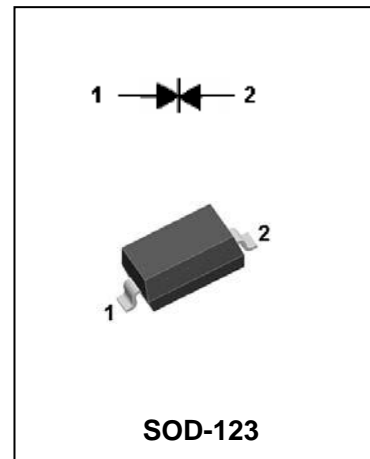
## SODDB3 / SODDB3T

### FEATURES

- The three layer,two terminal,axial lead,hermetically Sealed diacs are designed specifically for triggering thyristors.They demonstrate low breakover current at breakover voltage as they withstand peak pulse current. The breakover symmetry is within three volts.These diacs are intended for use in thyristors phase control,circuits for lamp dimming,universal motor speed control,and heat control.



Lead-free



### APPLICATION

- General diode amplification.

### ORDERING INFORMATION

Type No.	Marking	Package Code
SODDB3	DB3	SOD-123
SODDB3T	DB3T	SOD-123

### MAXIMUM RATING (operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	UNIT
Power Dissipation	$P_d$	150	mW
Repetitive peak on-state current $T_p=20\mu s, F=100\text{Hz}$	$I_{TRM}$	2.0	A
Operating Junction and Storage Temperature	$T_J, T_{stg}$	-40---+125	°C



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**SODDB3 / SODDB3T**

**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

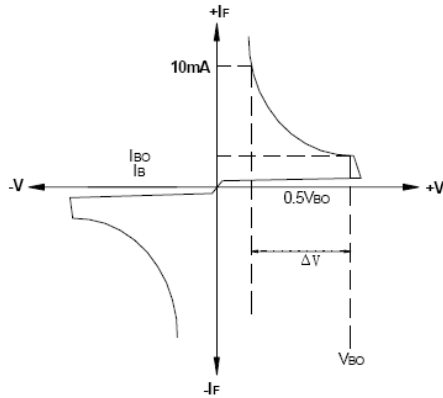
Parameter	Test Condition	Symbol		SODDB3	SODDB3T	UNIT
Repetitive peak on-state current Tp=20us,F=100Hz		$I_{TRM}$	<b>Min</b>	2		A
Reverse breakdown Voltage	C=22nF	$V_{BO}$	<b>Min</b>	28	30	V
			<b>TYP</b>	32	32	
			<b>MAX</b>	36	34	
Breakdown Voltage Symmetry	C=22nF	$[ +V_{BO1}  -   -V_{BO2}  ]$	<b>MAX</b>	$\pm 3$	$\pm 2$	V
Dynamic Breakdown Voltage	$\Delta I = [I_{BO} \text{ to } I_F = 10\text{mA}]$	$ \Delta V_{\pm} $	<b>Min</b>	5	9	V
Output voltage	See FIG.2	$V_o$	<b>Min</b>	5		V
Breakdown current	C=22nF	$I_{BO}$	<b>MAX</b>	100	15	uA
Leakage current	$V_B = 0.5V_{BO}$	$I_R$	<b>MAX</b>	10		uA
Rise time	See diagram 3	tr	<b>TYP</b>	1.5		us

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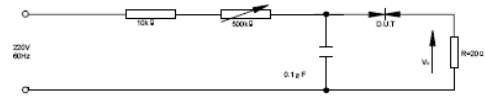
**SODDB3 / SODDB3T**

TYPICAL CHARACTERISTICS @  $T_a=25^\circ\text{C}$  unless otherwise specified

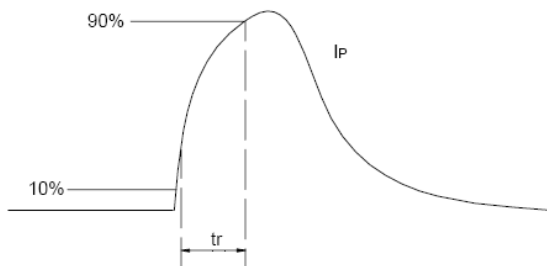
**FIG.1--VOLTAGE-CURRENT CHARACTERISTIC CURVE**



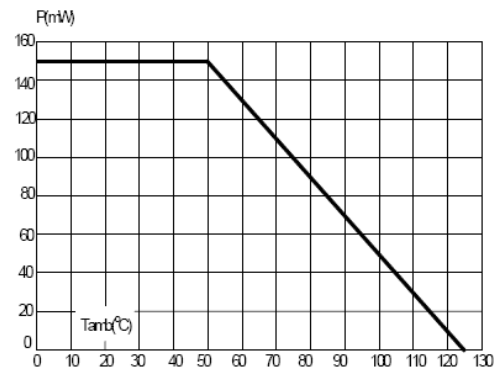
**FIG.2--TEST CIRCUIT FOR OUTPUT VOLTAGE**



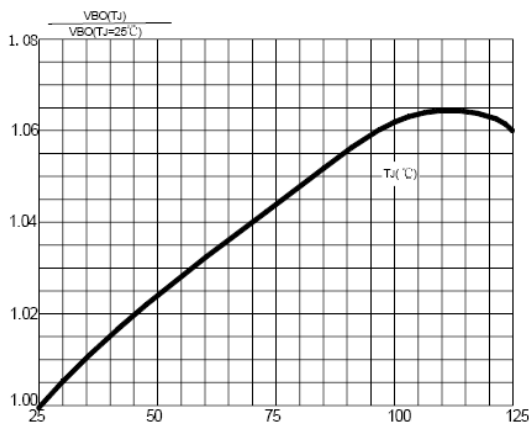
**FIG.3-- TEST CIRCUIT SEE FIG.2 ADJUST R FOR  $I_P=0.5A$**



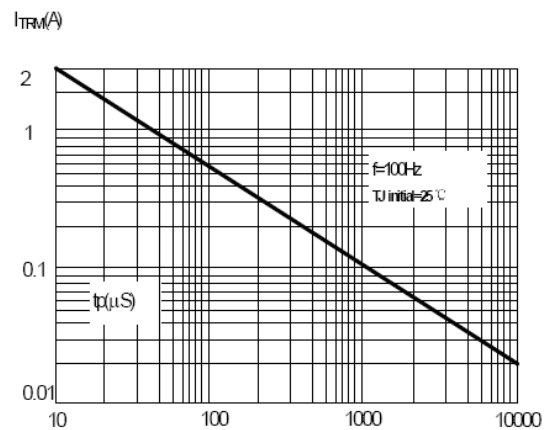
**FIG.4--POWER DISSIPATION VERSUS AMBIENT TEMPERATURE (MAXIMUM VALUES)**



**FIG.5--RELATIVE VARIATION OF  $V_{BO}$  VERSUS JUNCTION TEMPERATURE(TYPICAL VALUES)**



**FIG.6--PEAK PULSEE CURRENT VERENT VERSUS PULSE DURATION(MAXIMUM VALUES)**



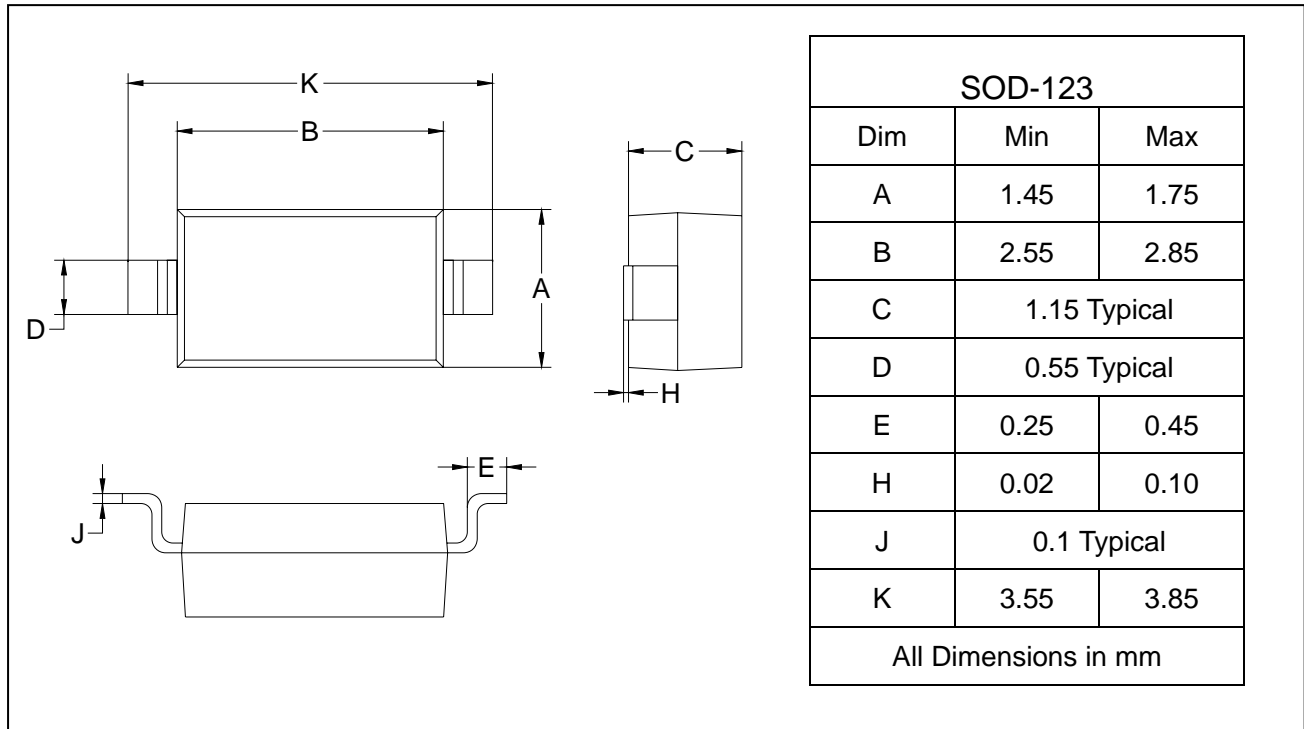
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**SODDB3 / SODDB3T**

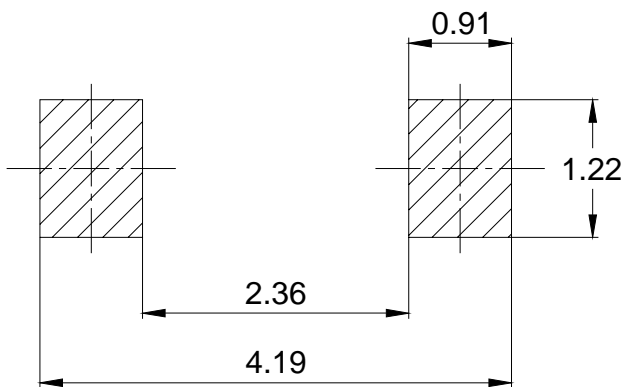
**PACKAGE OUTLINE**

Plastic surface mounted package

SOD-123



**SOLDERING FOOTPRINT**



Unit: mm

**PACKAGE INFORMATION**

Device	Package	Shipping
SODDB3/ SODDB3T	SOD-123	3000/Tape&Reel