

Dual series switching diode

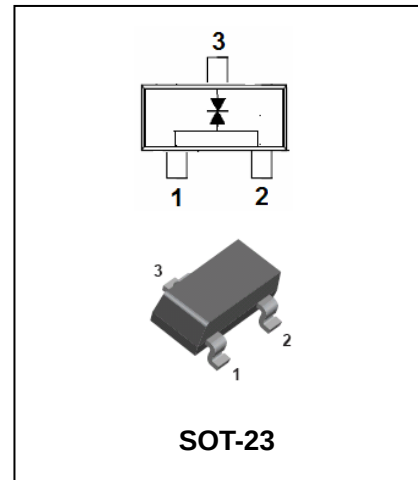
SMDB3

FEATURES

- V_{BO} : 32V and 36V
- LOW BREAKOVER CURRENT



Lead-free



ORDERING INFORMATION

Type No.	Marking	Package Code
SMDB3	DB3	SOT-23

MAXIMUM RATING @ $T_a=25^{\circ}\text{C}$ unless otherwise specified

Parameter	Symbol	Value	Unit
Repetitive peak on-state current $t_p = 20 \mu\text{s}$ $F = 120 \text{ Hz}$	I_{TRM}	1.00	A
Operating and storage temperature range	T_j, T_{STG}	-40to +125	$^{\circ}\text{C}$

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

Parameter	Typical	Test conditions	MIN	TYP	MAX	UNIT
Breakdown voltage*	V_{BO}	$C=22\text{nF}^{**}$	28	32	36	V
Breakover voltage symmetry	$V_{BO1} - V_{BO2}$	$C=22\text{nF}^{**}$			3	V
Dynamic breakover voltage*	ΔV	V_{BO} and V_F at 10mA	10			V
Output voltage *	V_o	see diagram 2 ($R=20\text{W}$)	10			V
Breakover current*	I_{BO}	$C=22\text{nF}^{**}$			10	μA
Rise time*	t_r	see diagram 3			0.50	μs
Leakage current*	I_R	$V_R = 0.5 V_{BO} \text{ max}$			1	μA
Peak current *	I_P	see diagram 2 (Gate)	1			A

*Applicable to both forward and reverse directions.

** Connected in parallel to the device.

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Diagram 1: Voltage - current characteristic curve.

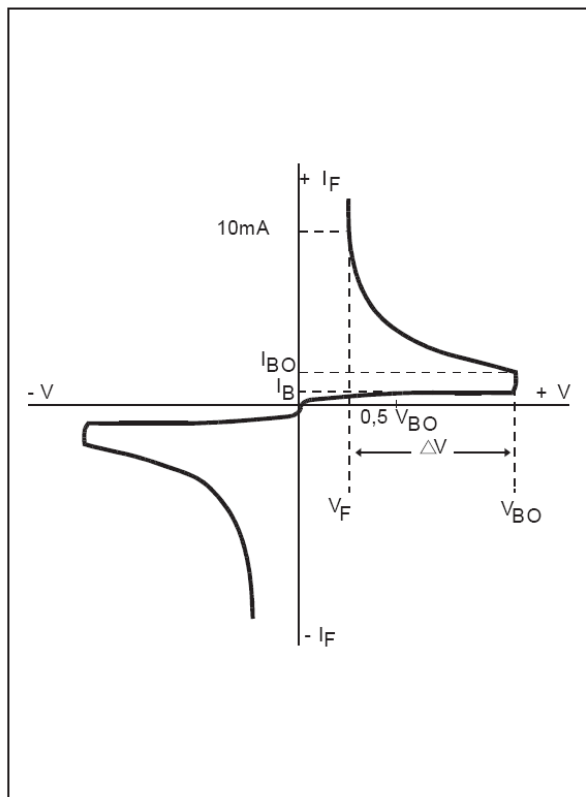


Diagram 2: Test circuit.

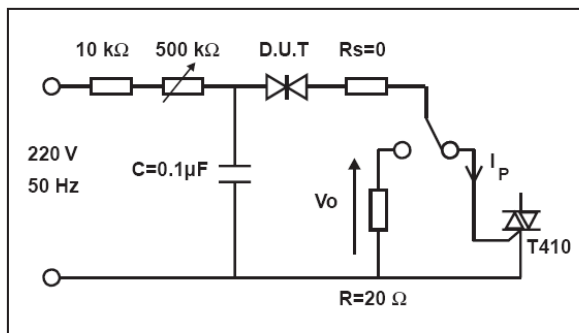
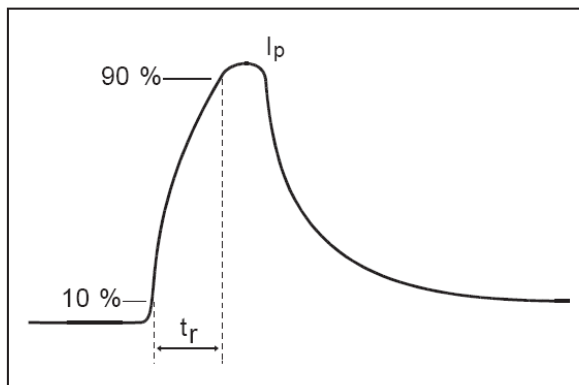


Diagram 3: Rise time measurement.



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

Fig. 1: Relative variation of V_{BO} versus junction temperature (typical values).

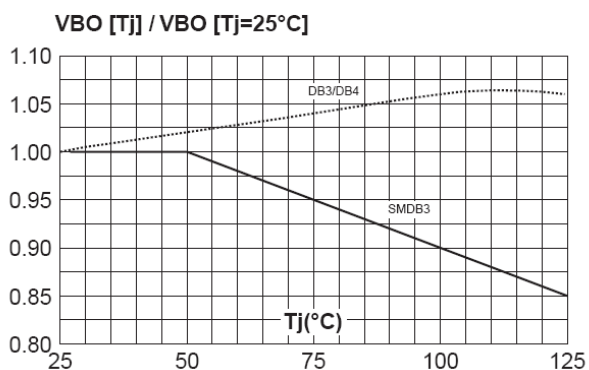
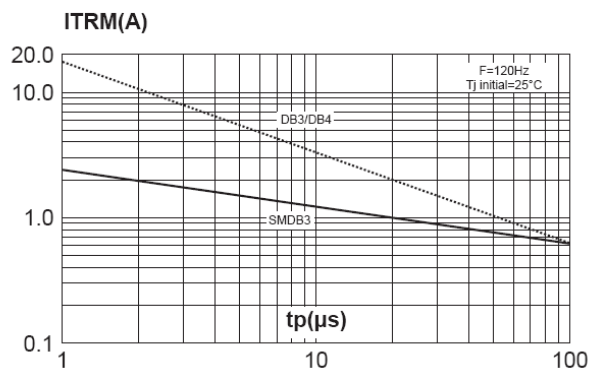


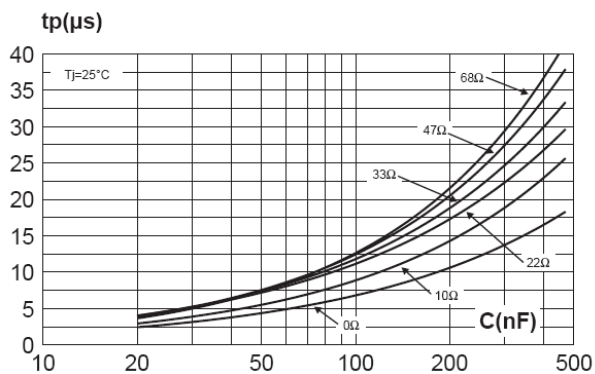
Fig. 2: Repetitive peak pulse current versus pulse duration (maximum values).



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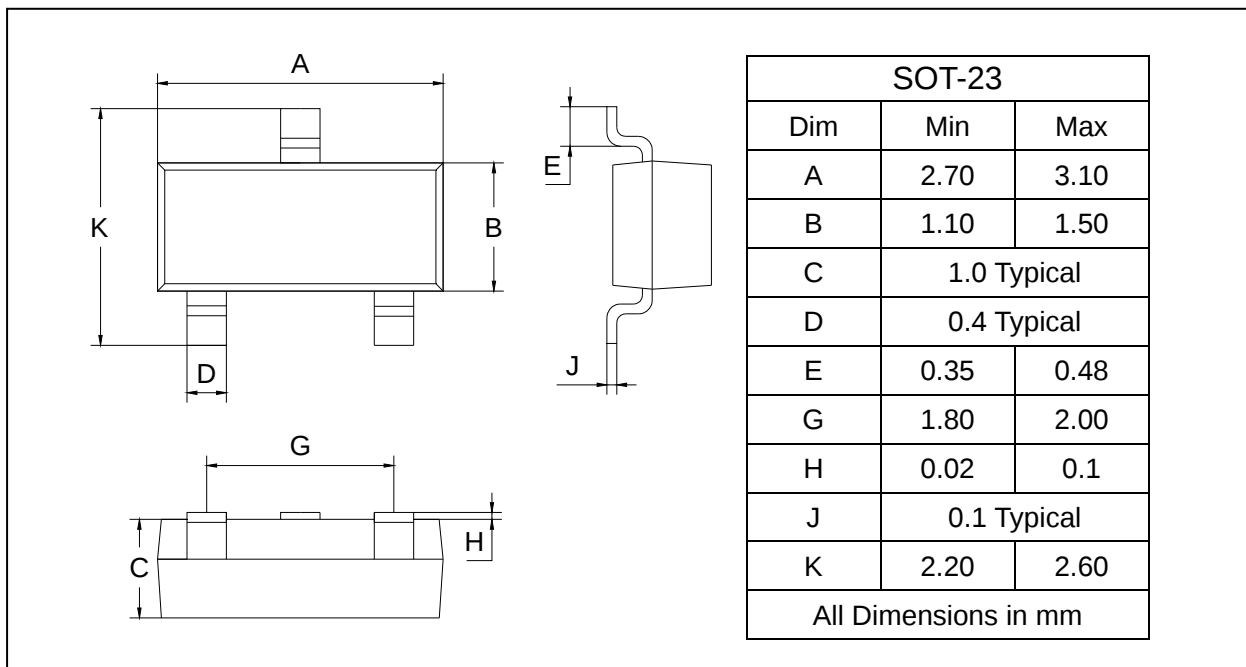
Fig. 3: Time duration while current pulse is higher 50mA versus C and Rs (typical values).



PACKAGE OUTLINE

Plastic surface mounted package

SOT-23

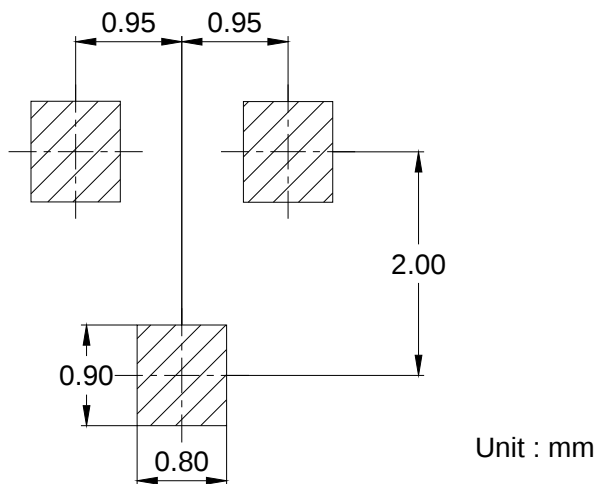




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SMDB3

SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
SMDB3	SOT-23	3000/Tape&Reel