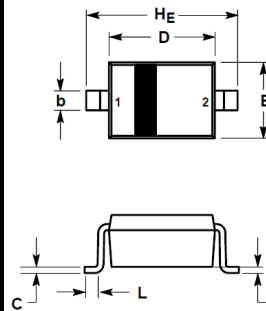


**SURFACE MOUNT  
FAST SWITCHING DIODE**
**REVERSE VOLTAGE – 250 Volts  
FORWARD CURRENT – 0.2 Amperes**
**FEATURES**

- Fast switching speed
- Ideally suited for automatic insertion
- For general purpose switching applications

**MECHANICAL DATA**

- Case: SOD-323 plastic
- Case material: “Green” molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Moisture sensitivity: Level 1 per J-STD-020D
- Lead Free in RoHS 2002/95/EC Compliant

**SOD-323**


SOD-323		
DIM	MIN	MAX
A	0.80	1.00
A1	--	0.10
A3	0.15	REF.
b	0.25	0.40
c	0.089	0.177
D	1.60	1.80
E	1.15	1.35
L	0.08	--
H <sub>E</sub>	2.30	2.70
All dimension in millimeter		

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

**ABSOLUTE RATINGS & THERMAL CHARACTERISTICS**

PARAMETER	SYMBOL	VALUE	UNIT
Continuous reverse voltage	V <sub>R</sub>	250	V
Total device dissipation (Note 1) @ T <sub>A</sub> = 25 °C	P <sub>D</sub>	200	mW
Peak forward current	I <sub>F</sub>	200	mA
Peak forward surge current	I <sub>FM</sub>	625	mA
Non-repetitive peak forward current t = 1 us t = 100 us t = 100 ms	I <sub>FSM</sub>	9 3 1.7	A
Junction and storage temperature rang	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C
Thermal resistance junction to ambient (Note 1)	R <sub>thJA</sub>	635	°C/W

**STATIC ELECTRICAL CHARACTERISTICS**

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Maximum forward voltage	I <sub>F</sub> = 100 mA I <sub>F</sub> = 200 mA	V <sub>F</sub>	1000 1250	mV
Reverse breakdown voltage	I <sub>BR</sub> = 100 uA	V <sub>BR</sub>	250	V
Maximum DC reverse current at rated DC blocking voltage	V <sub>R</sub> = 200 V V <sub>R</sub> = 200 V, @ T <sub>J</sub> = 150 °C	I <sub>R</sub>	0.1 100	uA

**DYNAMIC ELECTRICAL CHARACTERISTICS**

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Typical diode capacitance	V <sub>R</sub> = 0 V, f = 1 MHz	C <sub>D</sub>	5	pF
Reverse recovery time	I <sub>F</sub> = I <sub>R</sub> = 30 mA, R <sub>L</sub> = 100 Ω	T <sub>RR</sub>	50	ns

**Note :**

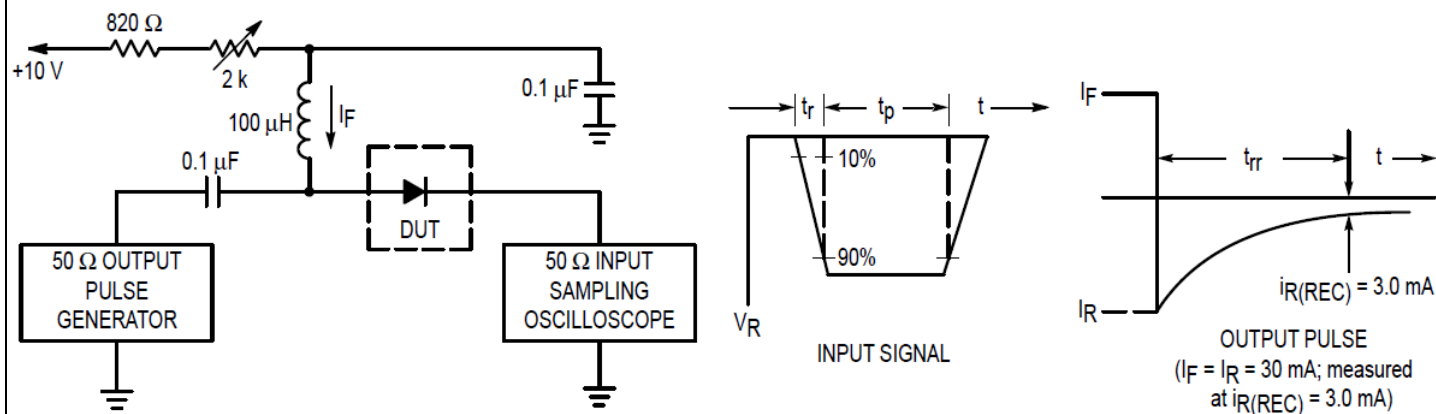
(1) Device mounted on fr-5 board, minimum pad.

REV-3, Aug.-2016, KSYR95

**ORDERING INFORMATION**

DEVICE	MARKING	EQUIVALENT CIRCUIT DIAGRAM	SHIPPING
BAV21WS	JS	1  2	3000/ Tape & Reel

FIG.1 - Recovery time equivalent test circuit



- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current ( $I_F$ ) of 30 mA.  
2. Input pulse is adjusted so  $I_{R(\text{peak})}$  is equal to 30 mA.  
3.  $t_p \gg t_{rr}$

FIG.2 - Typical forward characteristics

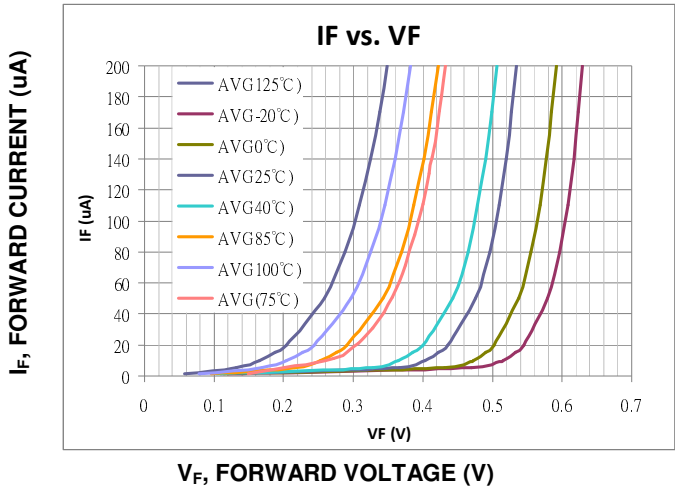
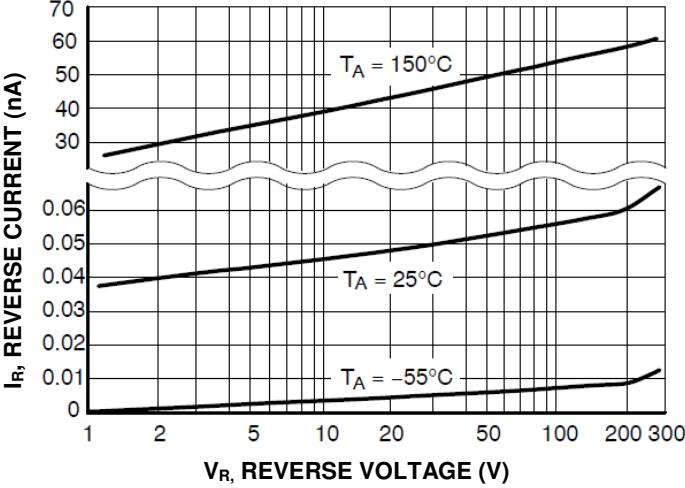


FIG.3 - Typical reverse characteristics



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