

**SURFACE MOUNT
FAST SWITCHING DIODE**

**REVERSE VOLTAGE – 100 to 150 Volts
FORWARD CURRENT – 0.2 Ampere**

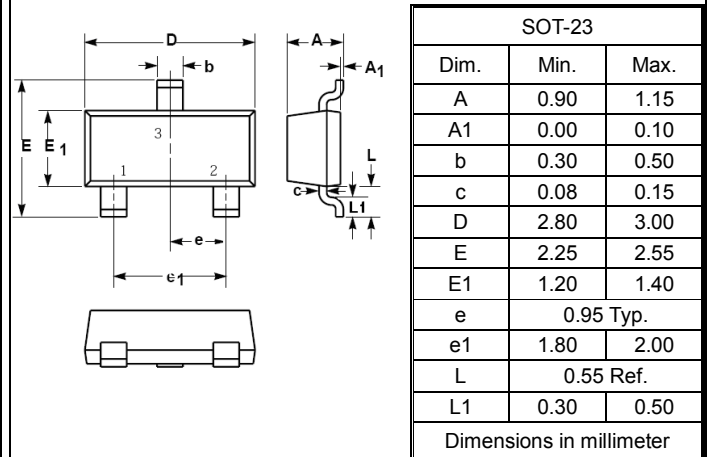
FEATURES

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

MECHANICAL DATA

- Case: SOT-23 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

SOT-23



Maximum Ratings & Thermal Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	BAS19	BAS20	Units
Non-Repetitive Peak Reverse Voltage DC Blocking Voltage	V_{RM} V_R	100	150	V
Average Rectified Output Current	I_O	200		mA
Non-Repetitive Peak Forward Surge Current @t=1.0us	I_{FSM}	2.5		A
Power Dissipation	P_D	250		mW
Operating Temperature Range	T_J	150		°C
Storage Temperature Range	T_{STG}	-65~+150		°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Test Condition	Symbol	BAS19	BAS20	Unit
Reverse Breakdown Voltage	$I_R = 100\mu A$	V_{BR}	100	150	V
Maximum Forward Voltage	$I_F = 100mA$ $I_F = 200mA$	V_F	1 1.25		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$V_R = 100V$ $V_R = 150V$	I_R	0.1		μA
Typical Diode Capacitance	$V_R = 0V, f = 1MHz$	C_D	5		pF
Reverse Recovery time	$I_{RR} = 3mA$, $I_F = I_R = 30mA$, $R_L = 100\Omega$	t_{rr}	50		nS

REV. 3, Oct-2010, KSYR24

RATING AND CHARACTERISTIC CURVES BAS19 thru BAS20



Fig.1 Typical Forward Characteristics

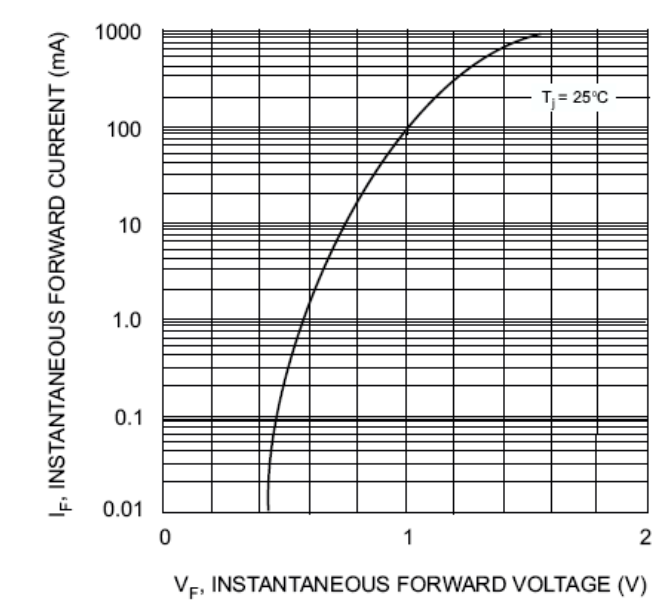
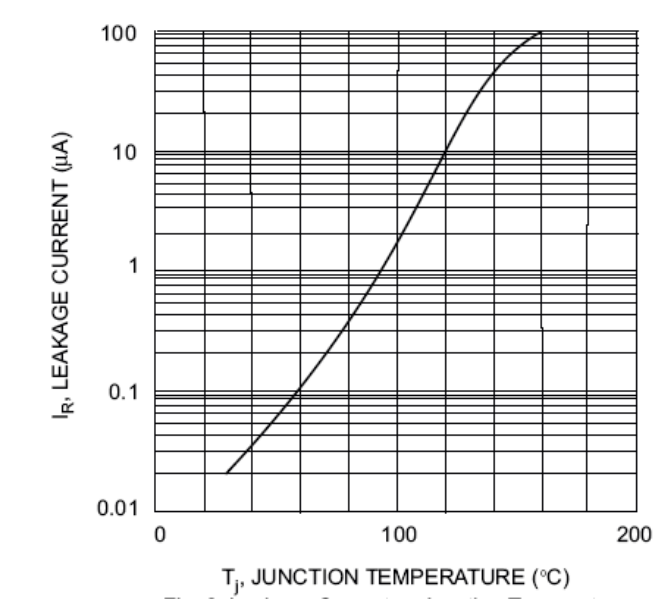


Fig.2 Typical Reverse Characteristics



Device Marking :

Device P/N	Marking	Equivalent Circuit Diagram
BAS19	JP	<div> <div>3</div> <div> <div></div> <div></div> </div> <div>1</div> </div>
BAS20	JR	

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