LITE-ON SEMICONDUCTORS

BAS16X

SURFACE MOUNT
FAST SWITCHING DIODE

REVERSE VOLTAGE – 75 Volts
FORWARD CURRENT – 0.2 Ampere

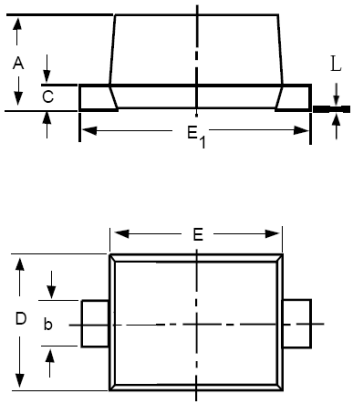
FEATURES

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

MECHANICAL DATA

- Case: SOD-523 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-523



SOD-523		
Dim.	Min.	Max.
A	0.51	0.77
b	0.25	0.35
C	0.08	0.15
D	0.75	0.85
E	1.10	1.30
E1	1.50	1.70
L	0.01	0.07
Dimensions in millimeter		

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

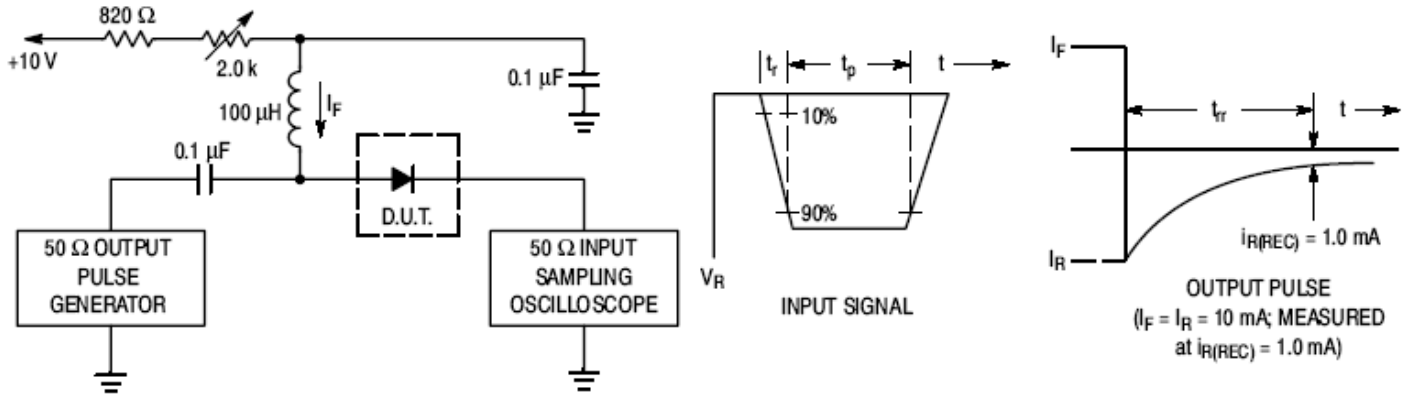
Characteristic	Symbol	BAS16X	Units
DC Reverse Voltage	V_R	75	V
Forward Current	I_F	200	mA
Repetitive Peak Forward Current @t=1s	I_{FSM}	0.5	A
Power Dissipation	P_D	150	mW
Thermal Resistance Junction to Ambient	$R_{\Theta JA}$	635	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{STG}	-65~+150	℃

Electrical Characteristics @ T_A = 25℃ unless otherwise specified

Characteristic	Test Condition	Symbol	BAS16X	Unit
Reverse Breakdown Voltage	I_R=100μA	$V_{(BR)R}$	75	V
Maximum Forward Voltage	I_F = 1mA I_F = 10mA I_F = 50mA I_F = 150mA	V_F	715 855 1000 1250	mV
Maximum DC Reverse Current at Rated DC Blocking Voltage	V_R = 75V	I_R	1	uA
Typical Diode Capacitance	V_R =0V,f=1MHz	C_D	2	pF
Reverse Recovery time	Irr=1mA, I_R=I_F=10mA R_L=50Ω	trr	6	ns

RATING AND CHARACTERISTIC CURVES
BAS16X

Fig.1 Recovery Time Equivalent Test Circuit



Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 10 mA.
2. Input pulse is adjusted so $I_{R(peak)}$ is equal to 10 mA.
3. $t_p \gg t_{rr}$

Fig.2 Typical Forward Characteristics

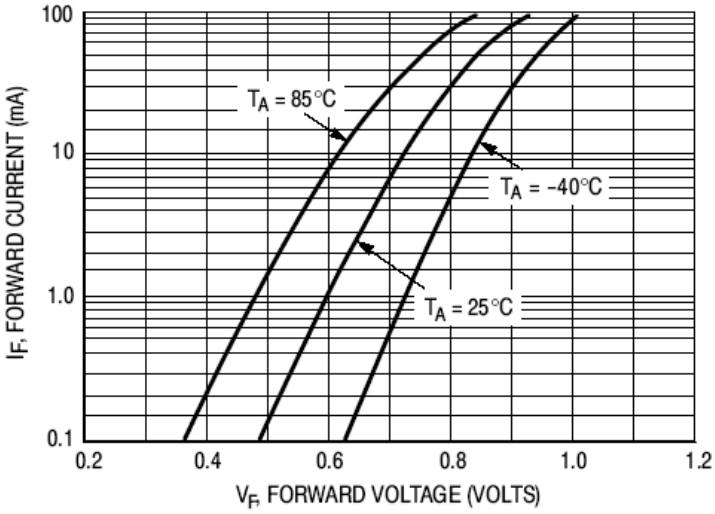


Fig.3 Typical Reverse Characteristics

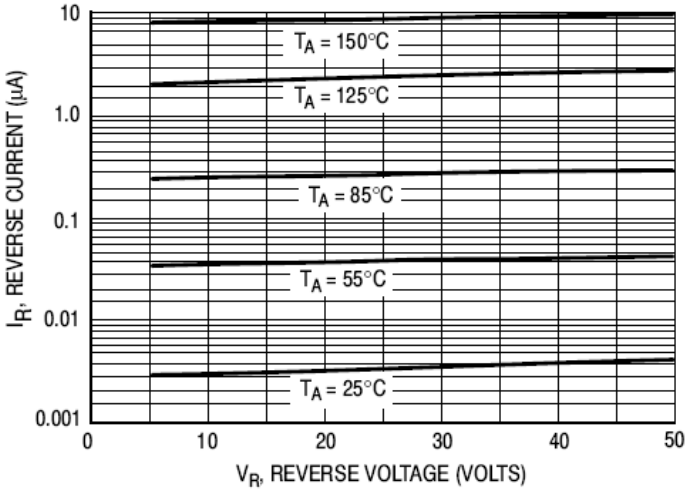
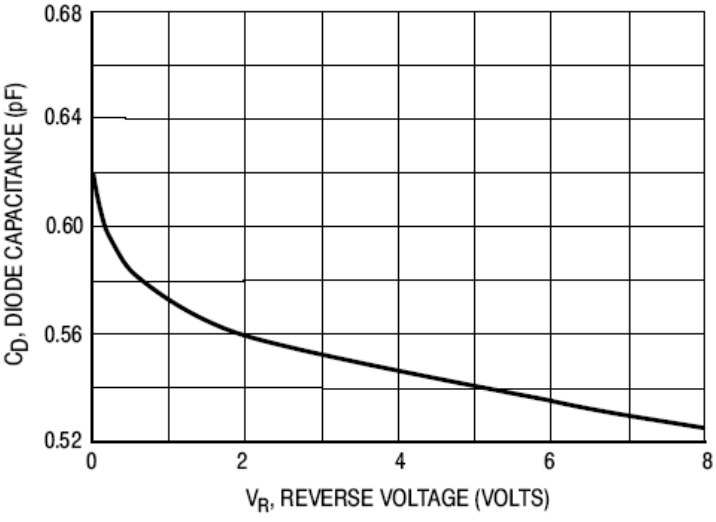


Fig.4 Total Capacitance vs. Reverse Voltage



Device Marking :

Device P/N	Marking code	Equivalent Circuit Diagram
BAS16X	A6	

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