

SURFACE MOUNT FAST SWITCHING DIODE	REVERSE VOLTAGE – 75 Volts FORWARD CURRENT – 0.2 Ampere
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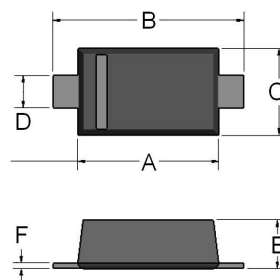
FEATURES

- Fast switching device ($T_{rr} < 4.0$ ns)
- Extremely Small SOD-523F Package
- Flat Lead SOD-523F Small Outline Plastic Package
- Surface device type mounting
- High Speed Switching Diodes
- Green EMC
- Matte Tin(Sn) Lead Finish
- RoHS compliant
- Band Indicates Cathode

MECHANICAL DATA

- Polarity: Color band denotes cathode

SOD-523F



SOD-523F		
DIM.	MIN.	MAX.
A	1.10	1.30
B	1.50	1.70
C	0.7	0.9
D	0.25	0.35
E	0.50	0.70
F	0.05	0.20

All Dimensions in millimeter

Maximum Ratings & Thermal Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	BAS16F	Units
Reverse Voltage	V_R	75	V
Peak Forward Surge Current	I_{FSM}	500	mA
Power Dissipation	P_D	200	mW
Operating Temperature Range	T_J	+150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55~+150	$^\circ\text{C}$
Forward Current	I_{FM}	200	mA

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Test Condition	Symbol	BAS16F	Unit
Breakdown voltage	$I_R = 100\mu\text{A}$	BV	75	V
Maximum Forward Voltage	$I_F = 1\text{mA}$ $I_F = 10\text{mA}$ $I_F = 50\text{mA}$ $I_F = 100\text{mA}$	V_F	0.715 0.855 1.1 1.3	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$V_R = 75\text{V}$	I_R	1	μA
Typical Diode Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	C_D	4	pF
Reverse Recovery time	$I_F = 10\text{mA}$, $V_R = 6\text{V}$ $R_L = 100\Omega$	t_{rr}	4	ns

RATING AND CHARACTERISTIC CURVES BAS16F



Figure 1. Power Dissipation vs Ambient Temperature
Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature

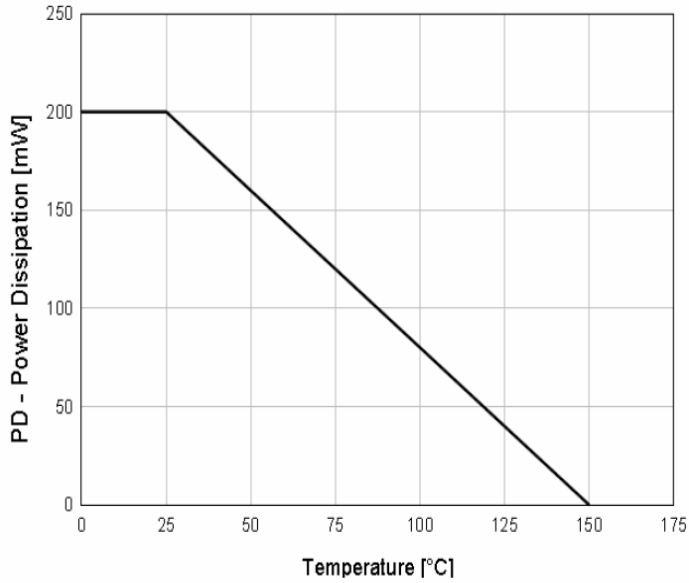


Figure 2. Total Capacitance

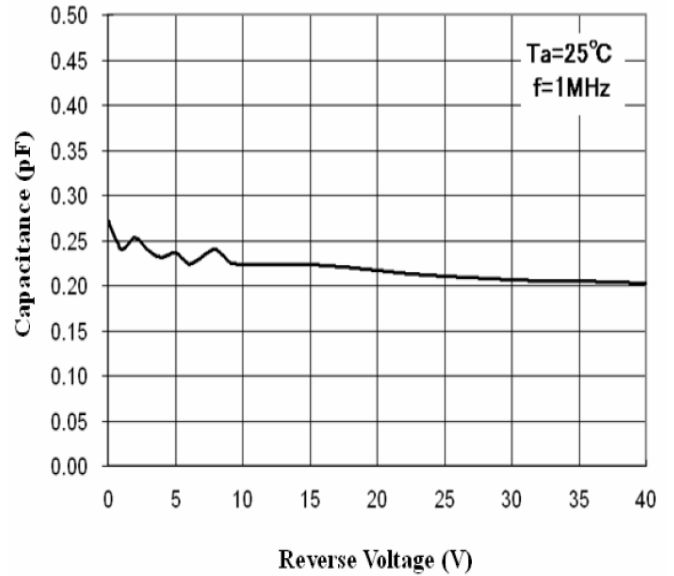


Figure 3. Reverse Voltage vs Reverse Current

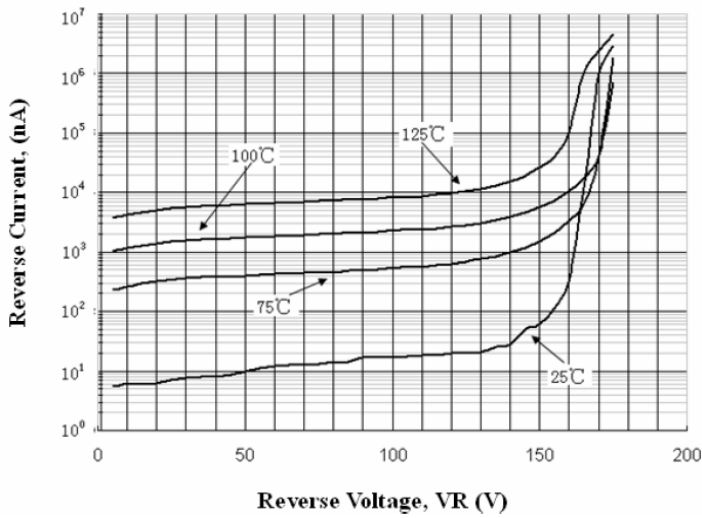
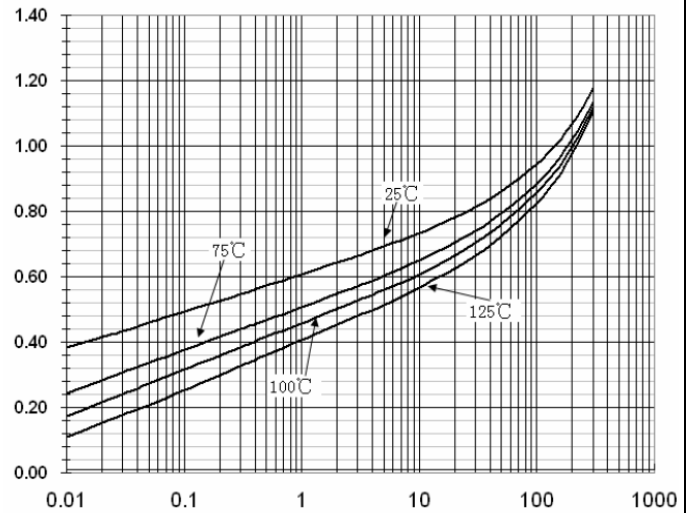


Figure 4. Forward Voltage vs Ambient Temperature



Device Marking:

Device P/N	Marking code	Equivalent Circuit Diagram
BAS16F	E6	

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