HFZT

BAS16

Small Signal Switching Diodes

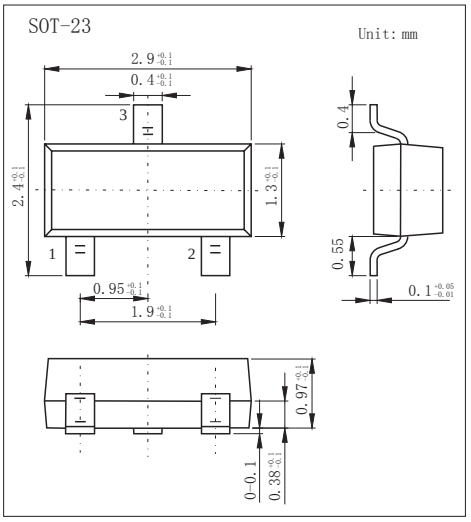
VOLTAGE RANGE: 75V
PEAK PULSE POWER:250mW

Features

- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance

MECHANICAL DATA

- Case: SOT-23 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Average Rectified Output Current	I_O	200	mA
Forward Continuous Current	I_{FM}	300	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0 μs @ t = 1.0s	I_{FSM}	2.0 1.0	A
Power Dissipation	P_d	250	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	357	℃/W
Operating and Storage Temperature Range	T,T_{STG}	-55 to +150	℃

Electrical Specification (T_A=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R=100 μA	75			V
Forward Voltage	V_F	I_F = 1.0mA I_F = 10mA I_F = 50mA I_F = 150mA			0.715 0.855 1.0 1.25	V
Leakage Current	I_R	V_R = 75V V_R = 20V			1.0 25	μA nA
Junction Capacitance	C_j	V_R = 0, f = 1.0MHz			2	pF
Reverse Recovery Time	t_{rr}	I_F = I_R = 10mA,I_{rr} = 0.1 X I_R, R_L = 100 Ω			4	ns

■ Marking

Marking	A6t

RATINGS AND CHARACTERISTIC CURVES

■ Typical Characteristics

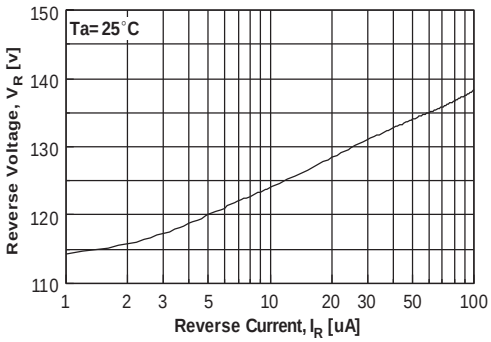


Figure 1. Reverse Voltage vs Reverse Current
BV - 1.0 to 100 uA

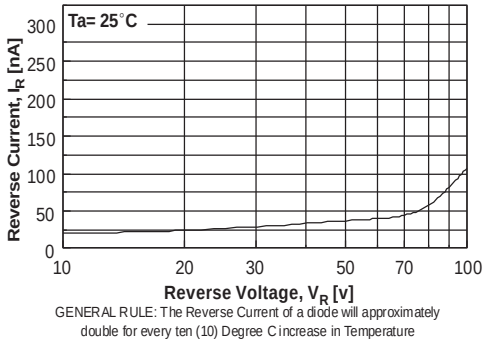


Figure 2. Reverse Current vs Reverse Voltage
IR - 10 to 100 V

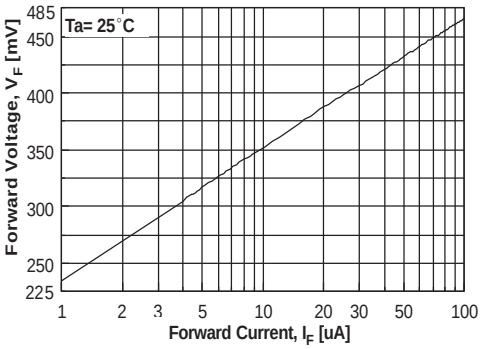


Figure 3. Forward Voltage vs Forward Current
VF - 1.0 to 100 uA

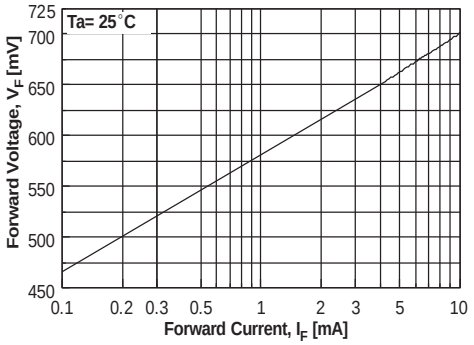


Figure 4. Forward Voltage vs Forward Current
VF - 0.1 to 10 mA

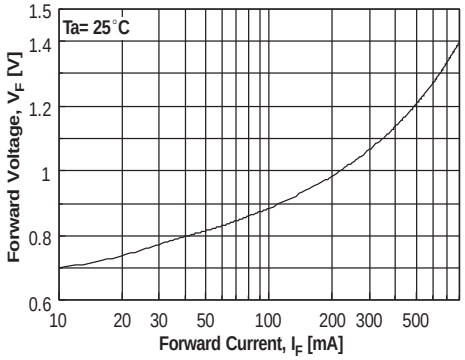


Figure 5. Forward Voltage vs Forward Current
VF - 10 - 800 mA

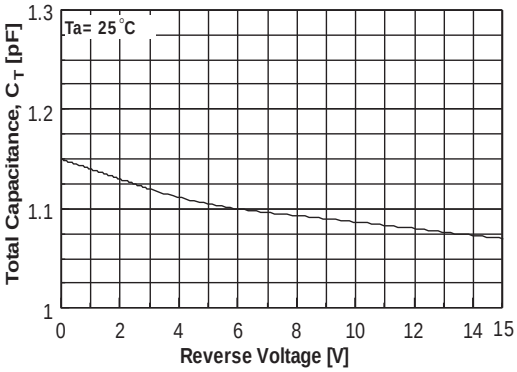


Figure 6. Total Capacitance

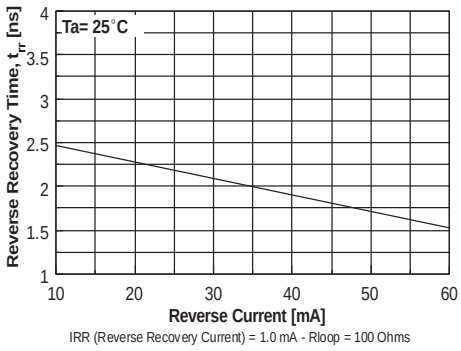


Figure 7. Reverse Recovery Time
vs Reverse Current
TRR - IR 10 mA vs 60 mA

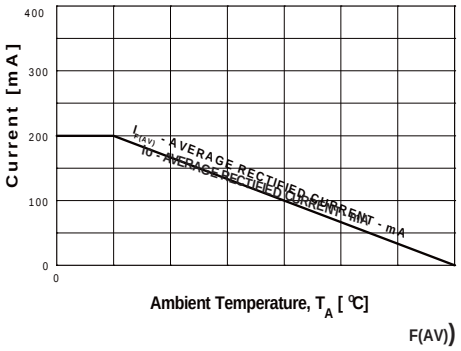
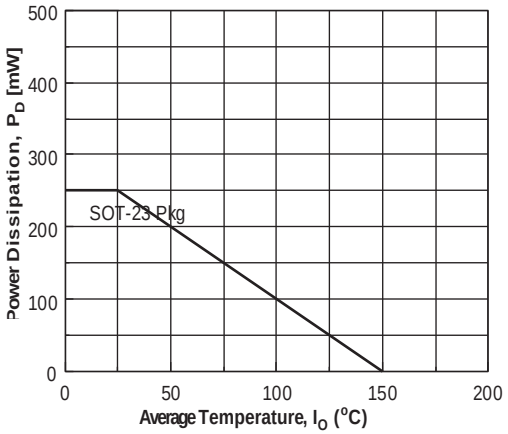


Figure 8. Average Rectified Current (I_A)
versus Ambient Temperature (T



Figrue 9. Power Derating Curve