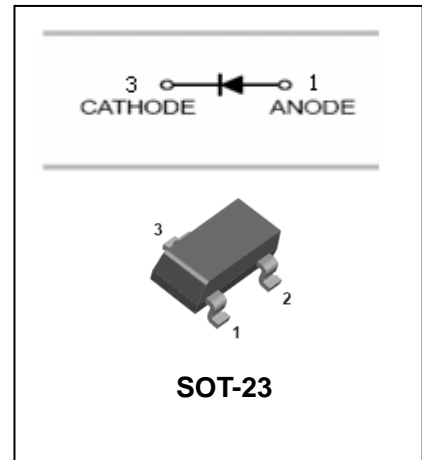


Surface mount switching diode

BAS116

FEATURES

- Low leakage current applications.
- Medium speed switching times.
- Surface mount package ideally suited for automatic Insertion.



APPLICATIONS

- High speed switching application.

ORDERING INFORMATION

Type No.	Marking	Package Code
BAS116	JV	SOT-23

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Limits	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	85	V
Working Peak Reverse Voltage	V_{RWM}		
DC Reverse Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	60	V
Forward Continuous Current	I_{FM}	215	mA
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	4.0	A
@t=1.0µs		1.0	
@t=1.0ms		0.5	
@t=1.0s			
Power Dissipation	P_d	250	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	500	°C/W
Operating Junction Temperature Range	T_j	150	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C



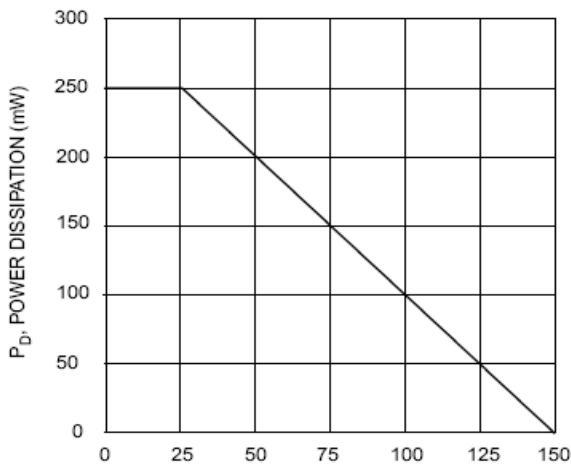
Surface mount switching diode

BAS116

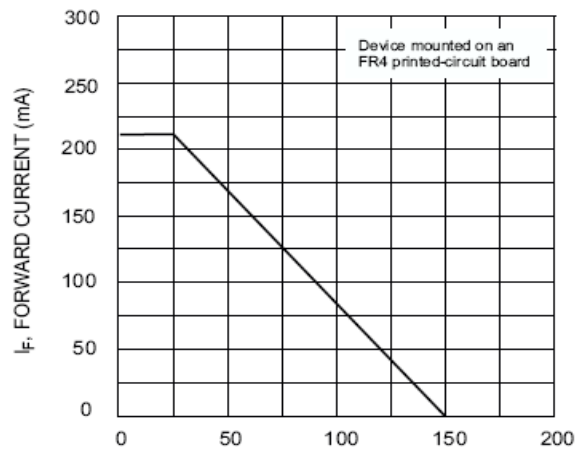
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	MAX	UNIT	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	85	-	-	V	$I_R=100\mu A$
Forward Voltage	V_{FM}	-	-	0.9 1.0 1.1 1.25	V	$I_F=1mA$ $I_F=10mA$ $I_F=50mA$ $I_F=150mA$
Reverse Leakage Current	I_R	-	-	5.0 80	nA	$V_R=75V$ $V_R=75V, T_J=150^\circ C$
Junction Capacitance	C_j	-	2	-	pF	$V_R=0V, f=1.0MHz$
Reverse Recovery Time	t_{rr}	-	-	3	ns	$I_F=I_R=10mA, I_{rr}=0.1*I_R$

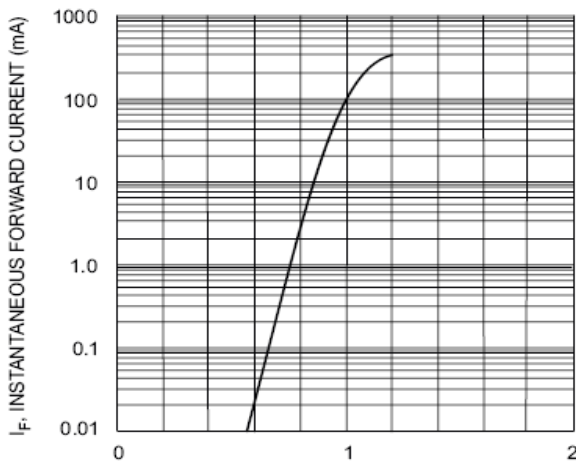
TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



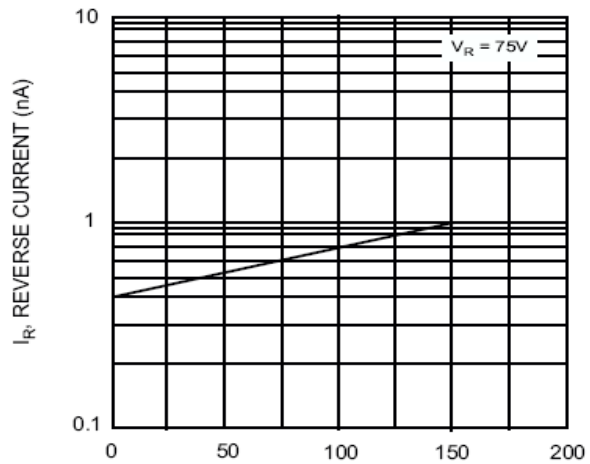
T_A, AMBIENT TEMPERATURE (°C)
Fig. 1 Power Derating Curve



T_A, AMBIENT TEMPERATURE (°C)
Fig. 2 Current Derating Curve



V_F, INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 3 Typical Forward Characteristics



T_A, AMBIENT TEMPERATURE (°C)
Fig. 4 Typical Reverse Characteristics

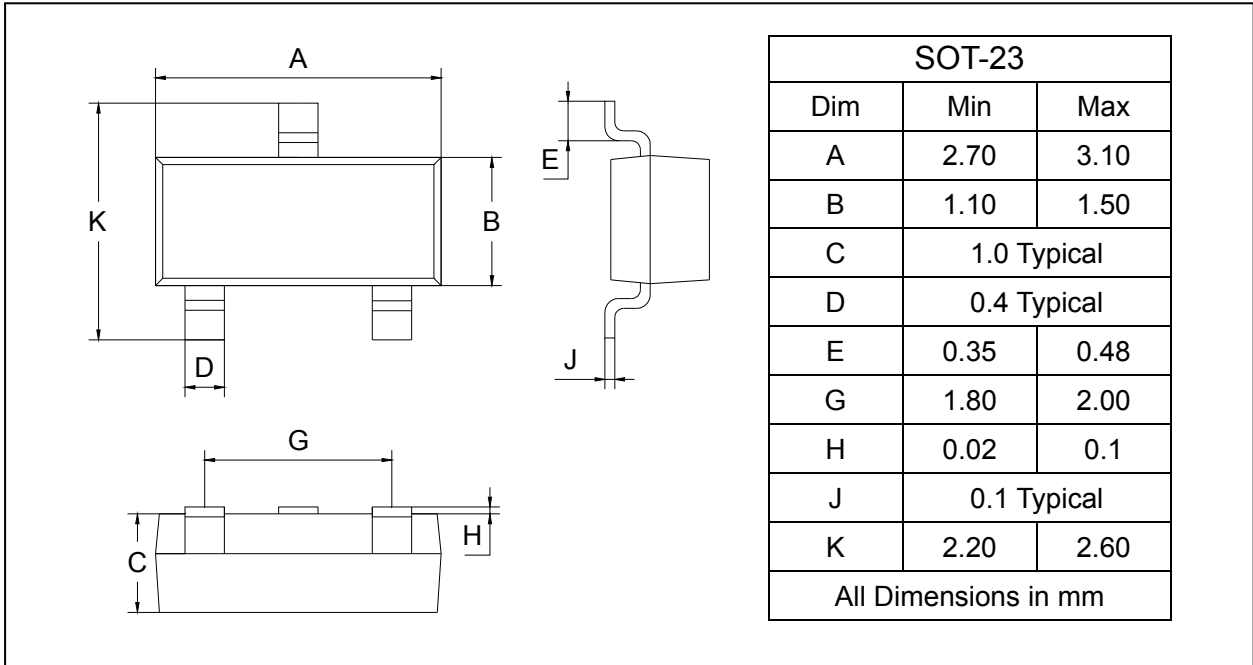
Surface mount switching diode

BAS116

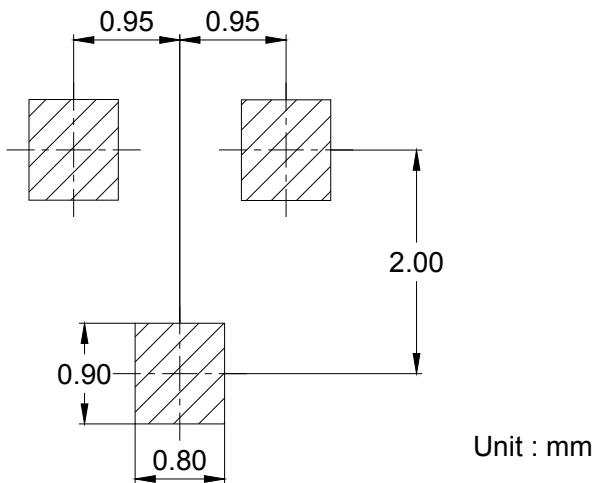
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
BAS116	SOT-23	3000/Tape&Reel