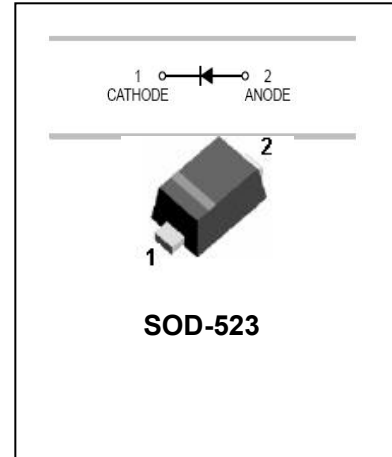


Low leakage Diode

FEATURES

- Ultra small plastic SMD package.
- Switching time: typ.0.6us.
- Continuous reverse voltage: max.75V.
- Repetitive peak reverse voltage: max.85V



APPLICATIONS

- Low leakage current switching in surface mounted circuits.

ORDERING INFORMATION

Type No.	Marking	Package Code
BAS716	BA	SOD-523

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}	250	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

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	MAX	UNIT	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	85	130	-	V	$I_R=100\mu A$
Forward Voltage	V_{FM}	-	-	0.8 0.9 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	-	1.5	3.0	pF	$V_R=0V, f=1.0MHz$
Reverse Recovery Time	t_{rr}	-	0.6	3	us	$I_F=I_R=10mA, I_{rr}=0.1 \cdot I_R$

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

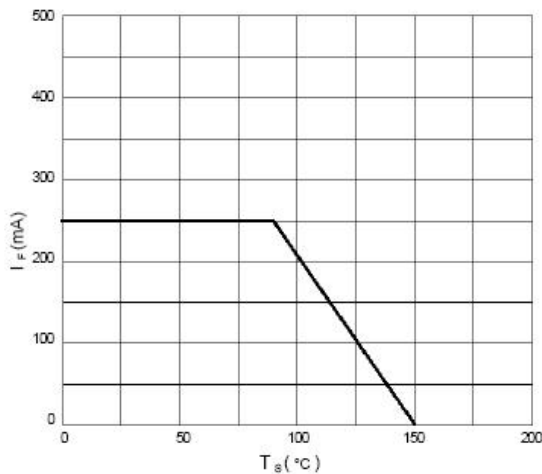


Fig.1 Maximum permissible continuous forward current as a function of soldering point temperature.

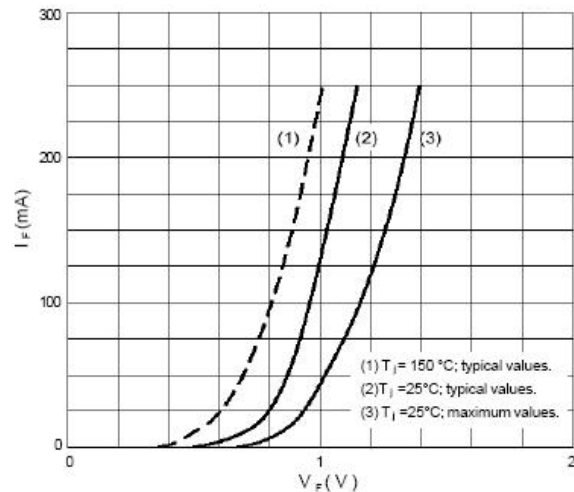


Fig.2 Forward current as a function of forward voltage.

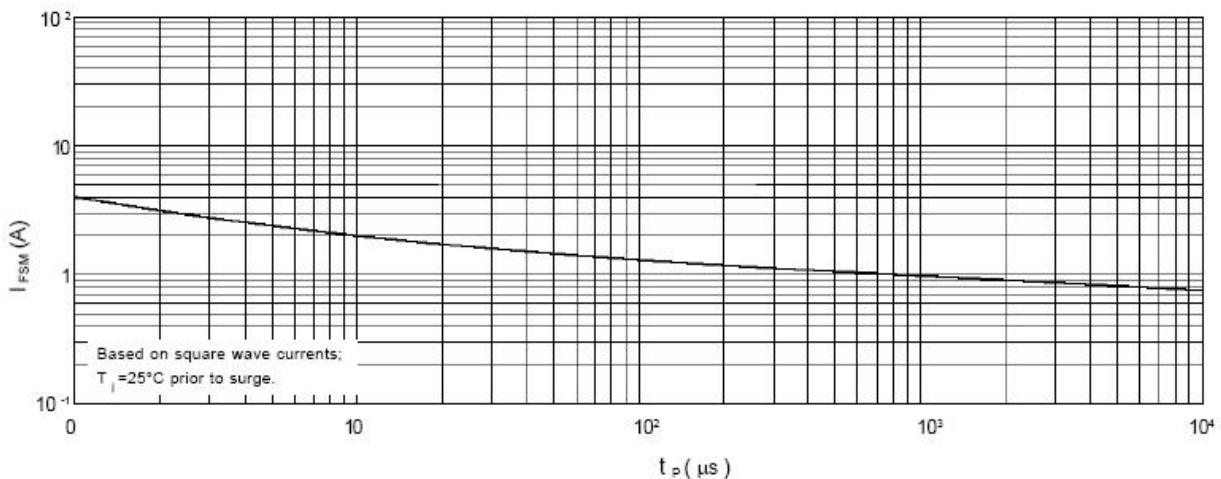


Fig.3 Maximum permissible non-repetitive peak forward current as a function of pulse duration.

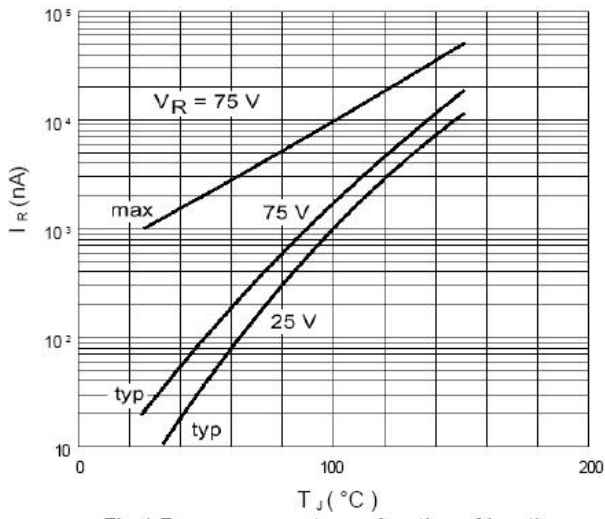


Fig.4 Reverse current as a function of junction temperature.

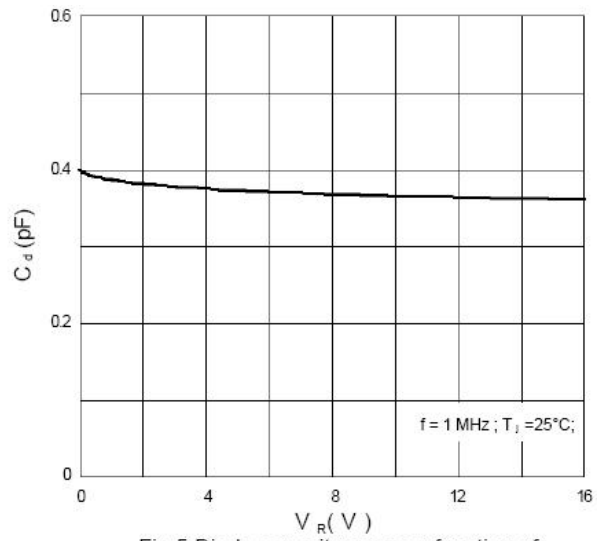


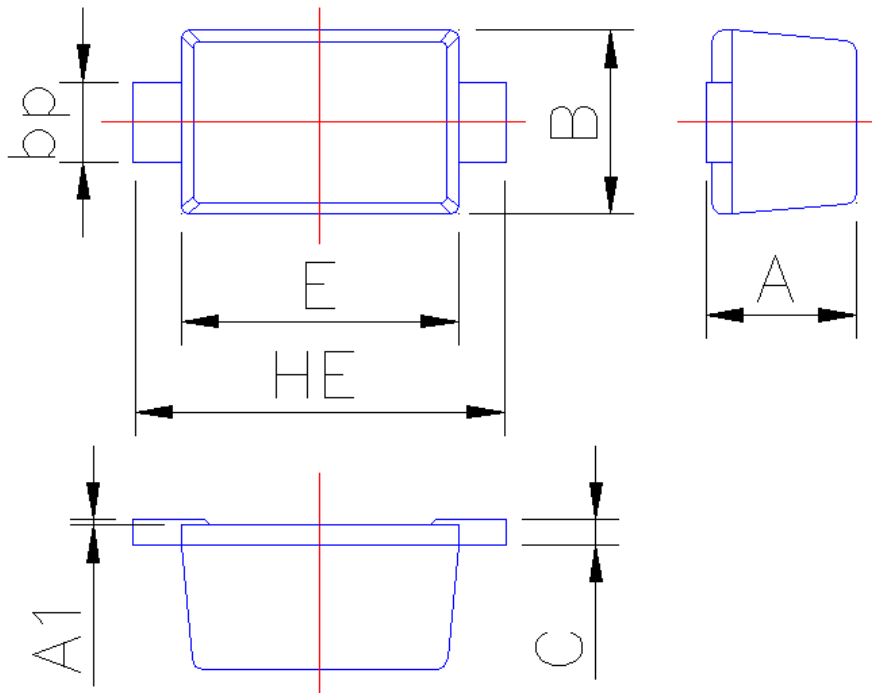
Fig.5 Diode capacitance as a function of reverse voltage; typical values.



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-523



Symbol	Dimension in Millimeters	
	Min	Max
A	0.60	0.70
A1	0	0.05
B	0.75	0.85
bp	0.25	0.40
C	0.09	0.15
E	1.15	1.25
HE	1.50	1.70