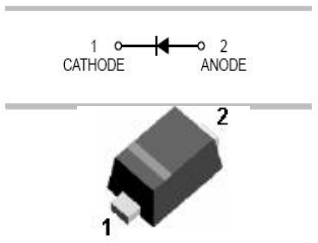
Low leakage Diode

FEATURES

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



SOD-523

APPLICATIONS

- Low leakage current switching in surface mounted circuits.

ORDERING INFORMATION

Type No.	Marking	Package Code
BAS716	BA	SOD-523

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Characteristic	**Symbol**	**Limits**	**Unit**
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Reverse Voltage	V_{RRM} V_{RWM} V_R	85	V
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 @t=1.0μs @t=1.0ms @t=1.0s	I_{FSM}	 4.0 1.0 0.5	A
Power Dissipation	P_d	250	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	500	℃/W
Operating Junction Temperature Range	T_j	150	℃
Storage Temperature Range	T_{STG}	-65 to +150	℃

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Characteristic	Symbol	Min	Typ	MAX	UNIT	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	85	130	-	V	I_R= 100μA
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℃
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=10mAI_{rr}=0.1*I_R

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

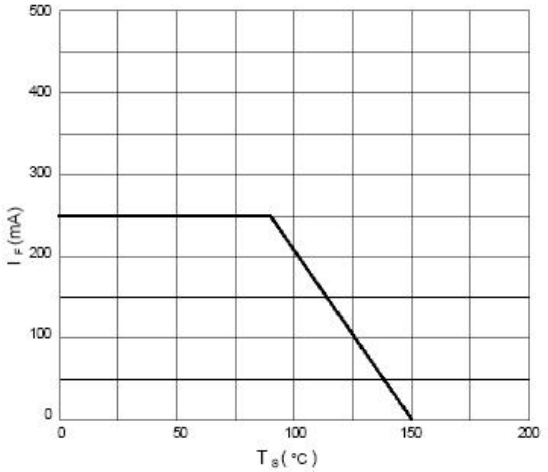


Fig.1 Maximum permissible continuous forward current as a function of soldering point temperature.

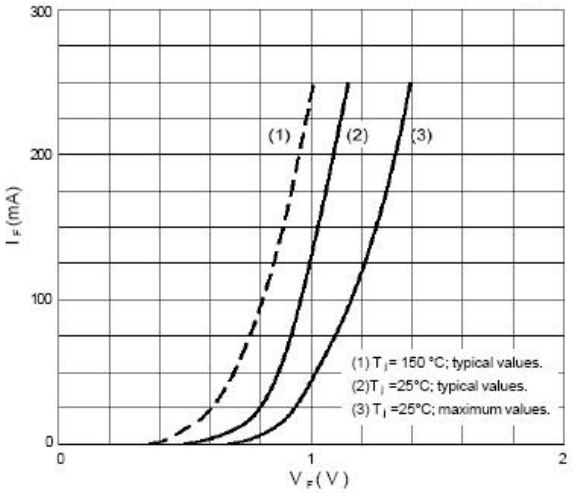


Fig.2 Forward current as a function of forward voltage.

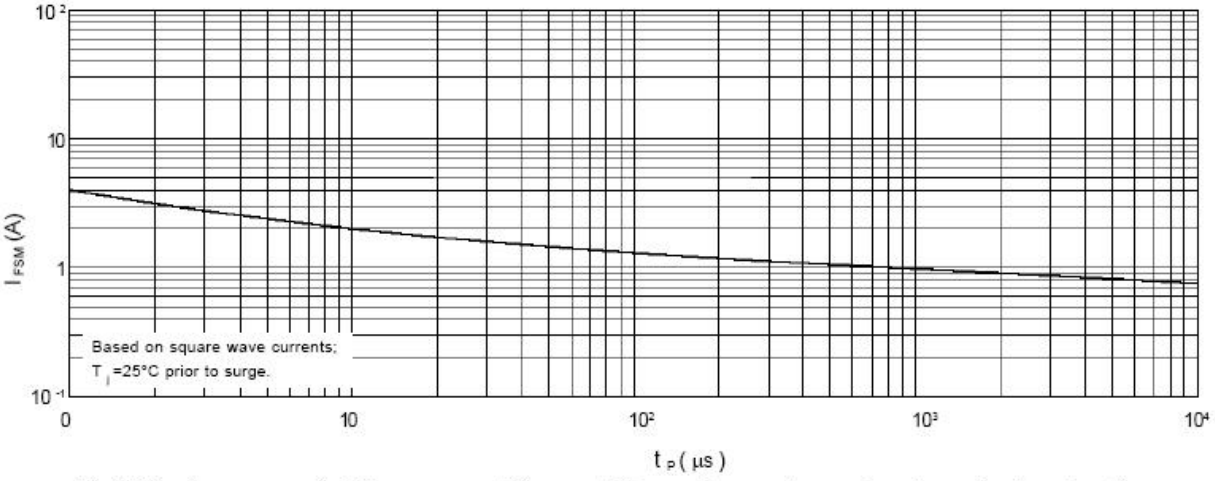


Fig.3 Maximum permissible non-repetitive peak forward current as a function of pulse duration.

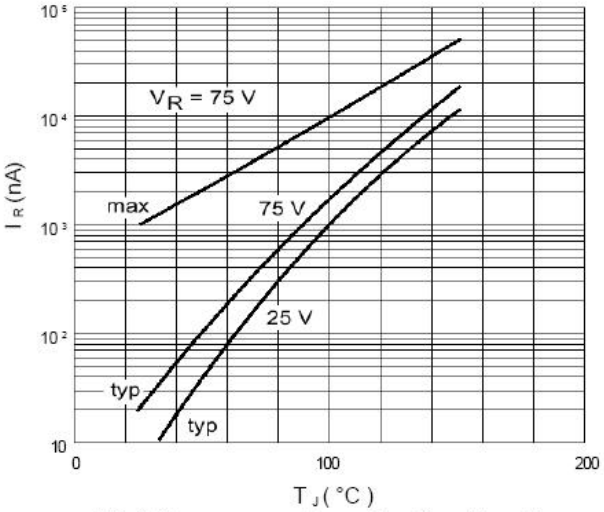


Fig.4 Reverse current as a function of junction temperature.

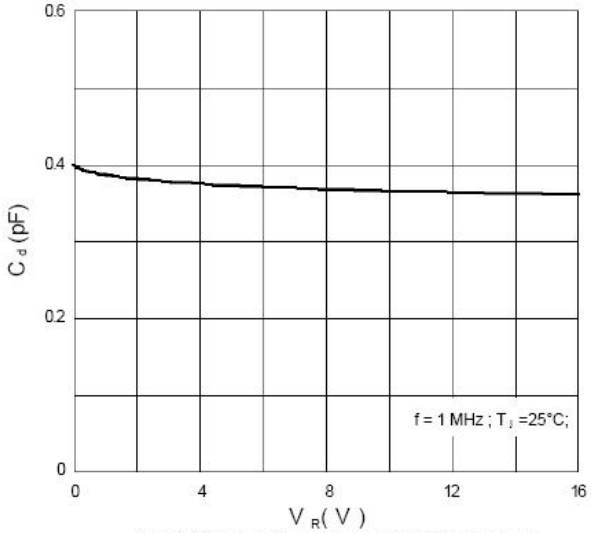


Fig.5 Diode capacitance as a function of reverse voltage; typical values.