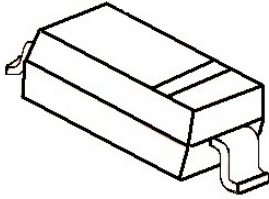


### SOD-323



MARKING: A1

### 特征 Features

- 开关速度小于 4.0nS; Fast Switching Device (TRR <4.0 nS)
- 最大功率耗散 250mW; Power Dissipation of 250mW
- 高稳定性和可靠性。High Stability and High Reliability
- 反向漏电流小。Low reverse leakage

### 机械数据 Mechanical Data

- 封装: SOD-323 封装 SOD-323 Small Outline Plastic Package
- 极性: 色环端为负极 Polarity: Color band denotes cathode end
- 环氧树脂 UL 易燃等级 Epoxy UL: 94V-0
- 安装位置: 任意 Mounting Position: Any

极限值和温度特性(TA = 25°C 除非另有规定)

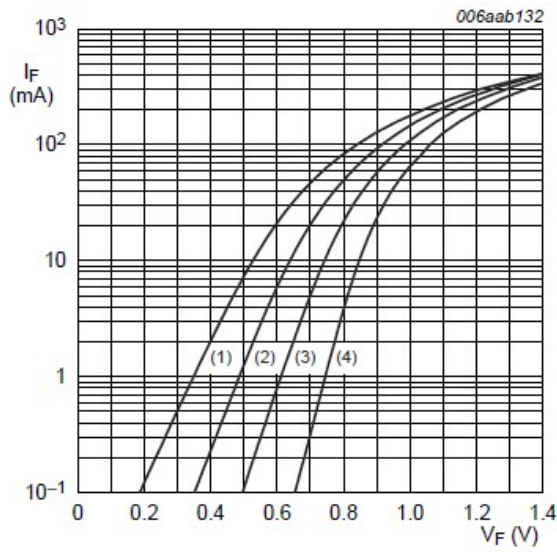
**Maximum Ratings & Thermal Characteristics** (Ratings at 25°C ambient temperature unless otherwise specified.)

参数 Parameters	符号 Symbol	数值 Value	单位 Unit
反向电压 Reverse Voltage	V <sub>R</sub>	80	V
反向峰值电压 Peak Reverse Voltage	V <sub>RM</sub>	100	V
功率消耗 Power Dissipation	P <sub>d</sub>	250	mW
工作结温 Operating junction temperature	T <sub>j</sub>	150	°C
存储温度 Storage temperature range	T <sub>s</sub>	-55-+150	°C
反向工作电压 Working Inverse Voltage	W <sub>IV</sub>	75	V
平均整流电流 Average Rectified Current	I <sub>o</sub>	215	mA
正向(不重复)电流 Non-repetitive Peak Forward Current	I <sub>FM</sub>	500	mA
正向(不重复)浪涌电流 Peak Forward Surge Current @tp=1us; TA=25°C	I <sub>FSM</sub>	2.0	A
Thermal resistance from junction to ambient	R <sub>th(j-a)</sub>	500	K/W

Valid provided that electrodes are kept at ambient temperature.

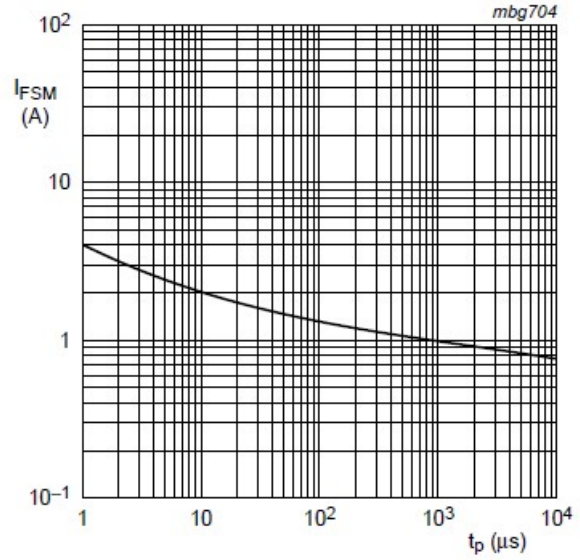
电特性 **Electrical Characteristics** (Ratings at 25°C ambient temperature unless otherwise specified).

符号 Symbols	参数 Parameter	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
BV	反向击穿电压 Breakdown Voltage	IR=100uA	100		V
		IR=5uA	80		
IR	反向漏电流 Reverse Leakage Current	VR=25V	---	30	nA
		VR=80	---	0.5	uA
VF	正向电压 Forward Voltage	IF=150mA	---	1.25	V
		IF=50mA	---	1.00	
		IF=10mA	---	0.855	
		IF=1.0mA	---	0.715	
TRR	反向恢复时间 Reverse Recovery Time	IF= 10mA, IR=10mA RL=100Ω, IRR=1mA	---	4	nS
C	结电容 Capacitance	VR=0V, f=1MHZ	---	1.5	pF



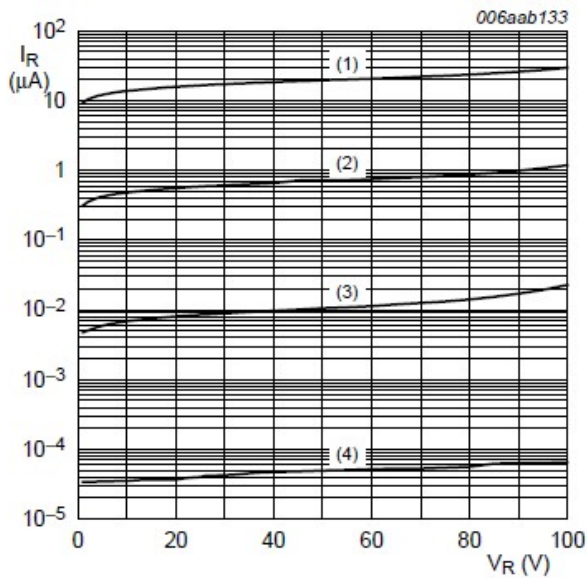
- (1)  $T_{amb} = 150^\circ\text{C}$
- (2)  $T_{amb} = 85^\circ\text{C}$
- (3)  $T_{amb} = 25^\circ\text{C}$
- (4)  $T_{amb} = -40^\circ\text{C}$

**Fig 1. Forward current as a function of forward voltage; typical values**



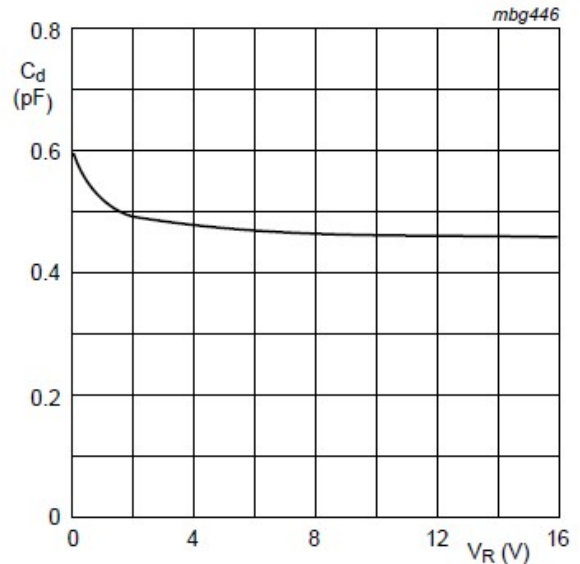
Based on square wave currents.  
 $T_{j(\text{init})} = 25^\circ\text{C}$

**Fig 2. Non-repetitive peak forward current as a function of pulse duration; maximum values**



- (1)  $T_{amb} = 150^\circ\text{C}$
- (2)  $T_{amb} = 85^\circ\text{C}$
- (3)  $T_{amb} = 25^\circ\text{C}$
- (4)  $T_{amb} = -40^\circ\text{C}$

**Fig 3. Reverse current as a function of reverse voltage; typical values**

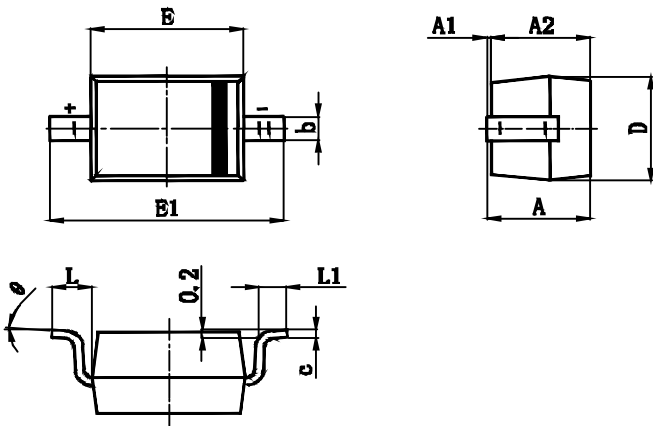


$f = 1\text{ MHz}; T_{amb} = 25^\circ\text{C}$

**Fig 4. Diode capacitance as a function of reverse voltage; typical values**

### SOD-323 PACKAGE OUTLINE Plastic surface mounted package

#### SOD-323



Symbol	Min.(mm)	Max.(mm)
A		1.000
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.350
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
L	0.475REF	
L1	0.250	0.400
$\theta$	0°	8°

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