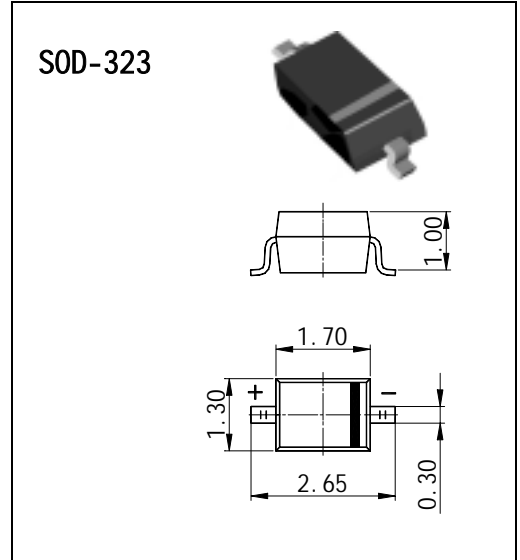




SOD-323 Plastic-Encapsulate Diode

- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection



Maximum Ratings and Electrical Characteristics, Single Diode @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	BAS70	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	70	V
RMS Reverse Voltage	V _{R(RMS)}	49	V
Forward Continuous Current (Note 1)	I _F	70	mA
Non-Repetitive Peak Forward Surge Current @ t _p < 1.0s	I _{FSM}	100	mA
Power Dissipation (Note 1)	P _d	200	mW
Thermal Resistance Junction to Ambient Air (Note 1)	R _{θJA}	625	K/W
Operating Junction Temperature Range	T _j	-55 to +125	°C
Storage Temperature Range	T _{STG}	-65 to +150	°C

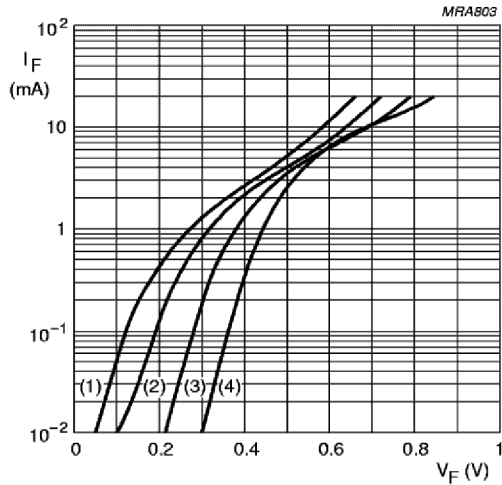
Electrical Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	V _{(BR)R}				
Forward Voltage	V _F	—	410 1000	mV	t _p < 300μs, I _F = 1.0mA t _p < 300μs, I _F = 15mA
Peak Reverse Current	I _{RM}	—	100	nA	t _p < 300μs, V _R = 50V
Junction Capacitance	C _j	—	2.0	pF	V _R = 0V, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	5.0	ns	I _F = I _R = 10mA to I _R = 1.0mA, R _L = 100Ω

- Notes:
1. Valid Provided that terminals are kept at ambient temperature.
 2. Test period < 3000μs.

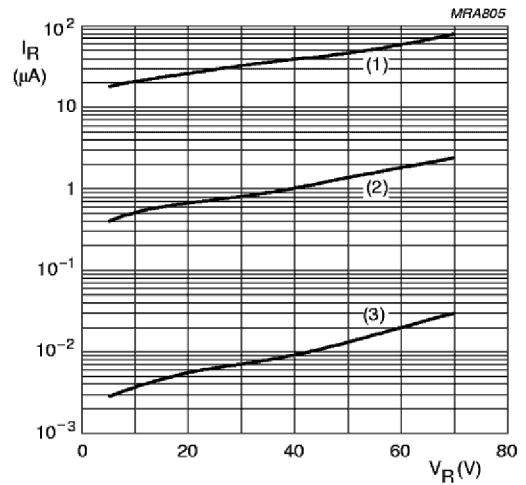
Typical Characteristics

BAS70WS



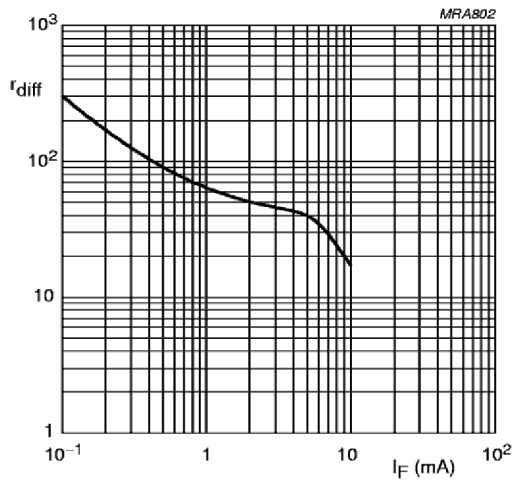
- (1) $T_{amb} = 125\text{ °C.}$
- (2) $T_{amb} = 85\text{ °C.}$
- (3) $T_{amb} = 25\text{ °C.}$
- (4) $T_{amb} = -40\text{ °C.}$

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



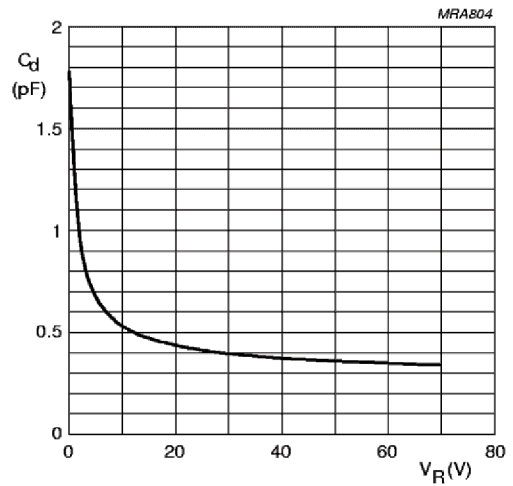
- (1) $T_{amb} = 125\text{ °C.}$
- (2) $T_{amb} = 85\text{ °C.}$
- (3) $T_{amb} = 25\text{ °C.}$

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



$f = 10\text{ kHz.}$

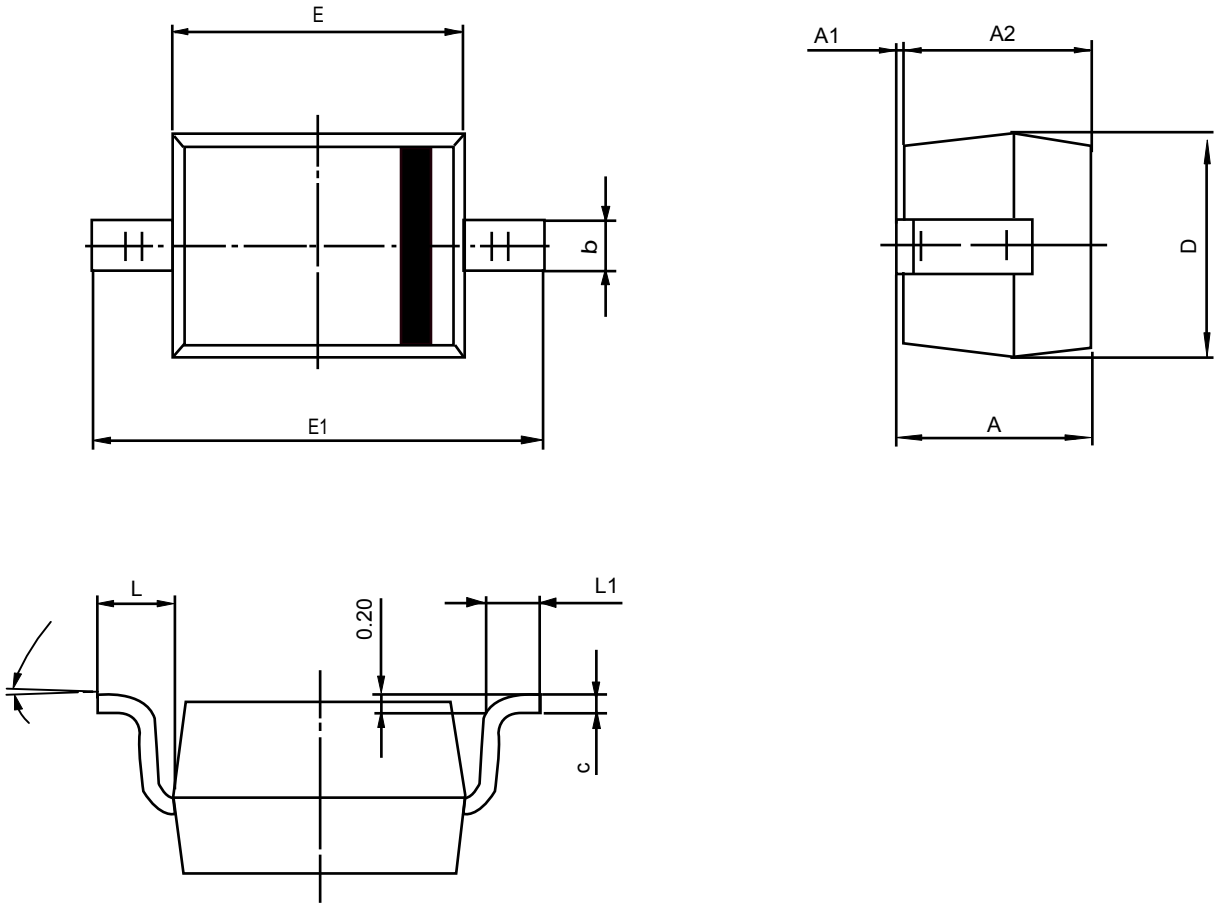
Differential forward resistance as a function of forward current; typical values.



$f = 1\text{ MHz; } T_{amb} = 25\text{ °C.}$

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

SOD-323 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.800	0.098	0.110
L	0.475REF		0.019REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°