

Schottky Diode


FEATURES

- ◆Fast Switching Device
- ◆Low Turn-on Voltage
- ◆PN Junction Guard Ring for Transient and ESD Protect

MECHANICAL DATA

- ◆Case: SOD-123
- ◆Polarity: Color band denotes cathode end
- ◆Mounting Position: Any

Pinning

1.Cathode	2.Anode
	
SOD-123	

Marking Code

BAS70W	K73
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Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbols	Value	Unit
Reverse Voltage	V_R	70	V
Peak Repetitive Reverse Voltag	V_{RRM}	70	V
Forward Continuous Current(note 1)	I_F	70	mA
Non repetitive Peak Forward Surge Current @ $t_p=1.0s; T_A=25^{\circ}C$	I_{FSM}	100	mA
Total Power Dissipation	P_D	200	mW
Thermal resistance From junction to ambient	$R_{\theta JA}$	625	K/W
Operating junction temperature range(note 1)	T_j	-55 to +125	°C
Storage temperature rang	T_{stg}	-65 to +150	°C

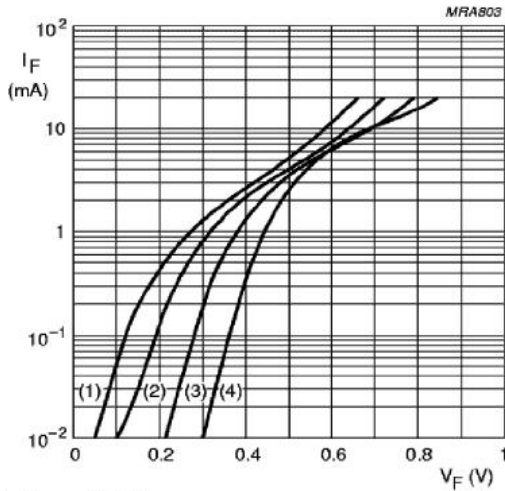
Electrical Characteristics (Ratings at 25°C ambient temperature unless)

Parameter	Symbols	Test Condition	Limits			Unit
			Min	Typ	Max	
Reverse Voltage(note 2)	$V_{(BR)}$	$I_R=10\mu A$	70	-	-	V
Reverse Leakage Current	I_R	$V_R=50V; t_p<300us$	-	-	30	nA
Forward Voltage	V_F	$I_F=1.0mA; t_p<300us$	-	-	0.41	V
		$I_F=15mA; t_p<300us$	-	-	1.0	V
Reverse Recovery Time	t_{rr}	$I_F=I_R=10mA$ to $I_R=10mA$ $R_L=100\Omega$	-	-	5	ns
Capacitance	C_T	$V_R=0V, f=1MHZ$	-	-	2	pF

Notes:

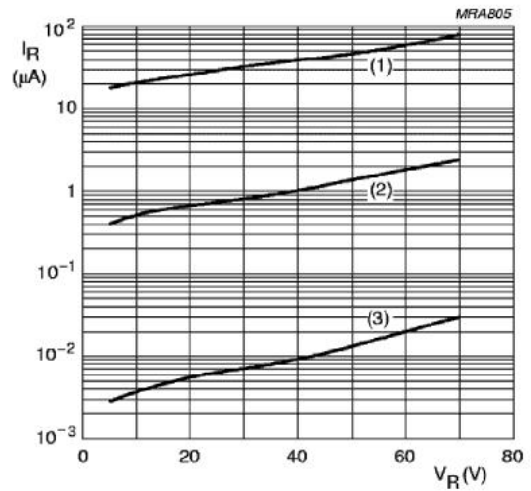
- Valid provided that electrodes are kept at ambient temperature.
- Test period

Typical Characteristics



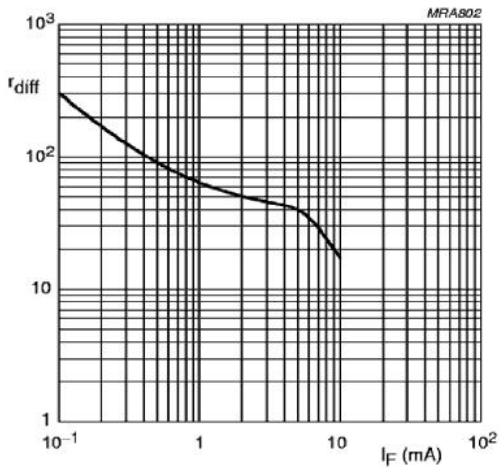
- (1) $T_{amb} = 125\text{ }^{\circ}\text{C}$.
- (2) $T_{amb} = 85\text{ }^{\circ}\text{C}$.
- (3) $T_{amb} = 25\text{ }^{\circ}\text{C}$.
- (4) $T_{amb} = -40\text{ }^{\circ}\text{C}$.

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



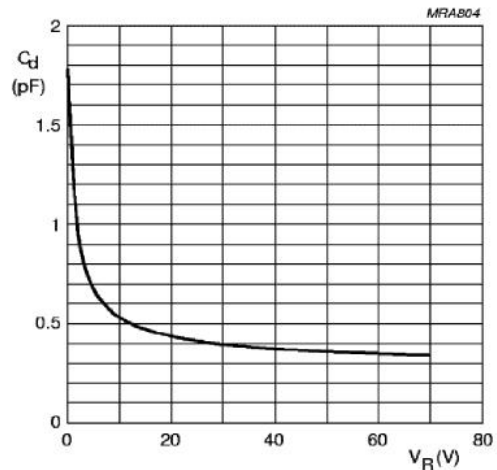
- (1) $T_{amb} = 125\text{ }^{\circ}\text{C}$.
- (2) $T_{amb} = 85\text{ }^{\circ}\text{C}$.
- (3) $T_{amb} = 25\text{ }^{\circ}\text{C}$.

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.



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

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

Ordering information

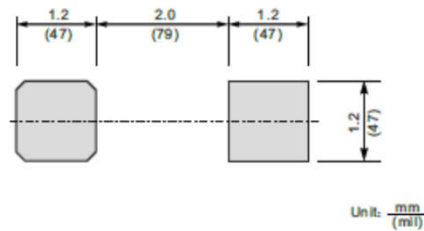
Package	Packing Description	Packing Quantity
SOD-123	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOD-123

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.3	35	51
C	0.09	0.22	3.5	8.7
D	1.5	1.8	59	71
E	2.5	2.8	98	110
E1	3.6	3.9	142	154
b	0.5	0.7	20	28
L1	0.25	0.45	10	18
A1	-	0.2	-	8
∠	9°			

The recommended mounting pad size



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