

BAS716

Schottky Barrier Diode

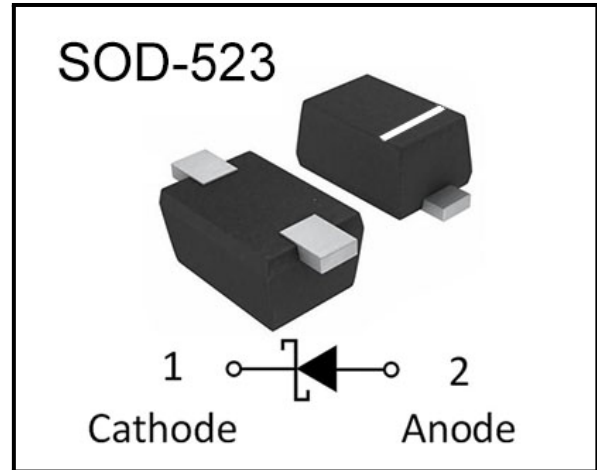
Features

- Small Package.
- Low Reverse Current.
- Fast Switching Speed.
- Surface Mount Package Ideally Suited for Automatic Insertion.

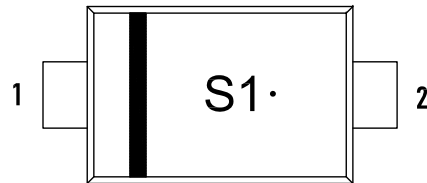
General Description

- Case: molded plastic
- Polarity: Color band denotes cathode
- Package: SOD-523 Plastic Package

Package



Marking



Ordering information

Order code	Package	Marking	Base qty	Delivery mode
BAS716	SOD-523	S1	3K	Tape and reel

Maximum Ratings (@T_A=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{RM}	Non-Repetitive Peak Reverse Voltage	100	V
V _{R(RM)}	Peak Repetitive Peak Reverse Voltage	75	V
V _{R(WM)}	Working Peak Reverse Voltage		
V _{R(RMS)}	RMS Reverse Voltage	53	V
I _O	Average Rectified Output Current	0.2	A
I _{FSM}	Non-repetitive Peak Forward Surge Current @8.3mS	1	A
P _D	Power Dissipation	225	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	556	°C/ W
T _j	Operating junction Temperature Range	-40 to +125	°C
T _{STG}	Storage temperature Range	-55 to +150	°C

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BAS716

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Electrical Characteristics(@T_A=25°C unless otherwise noted)

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
V _(BR)	Reverse breakdown voltage	I _R =100μA	75	–	–	V
I _R I _R	Reverse voltage leakage current	V _R =75V	–	–	5	nA
		V _R =100V	–	–	80	
V _F	Forward voltage	I _F =1mA	–	–	0.9	V
		I _F =10mA	–	–	1	
		I _F =50mA	–	–	1.1	
		I _F =150mA	–	–	1.25	
C _{tot}	Total capacitance	V _R =0V, f=1MHZ	–	2	–	pF
T _{rr}	Reverse recovery time	I _F =I _R = 10mA, I _{rr} =0.1XI _R	–	–	3	nS



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Typical Performance Characteristics ($T_J = 25^\circ\text{C}$, unless otherwise noted)

Figure 1: Forward Characteristics

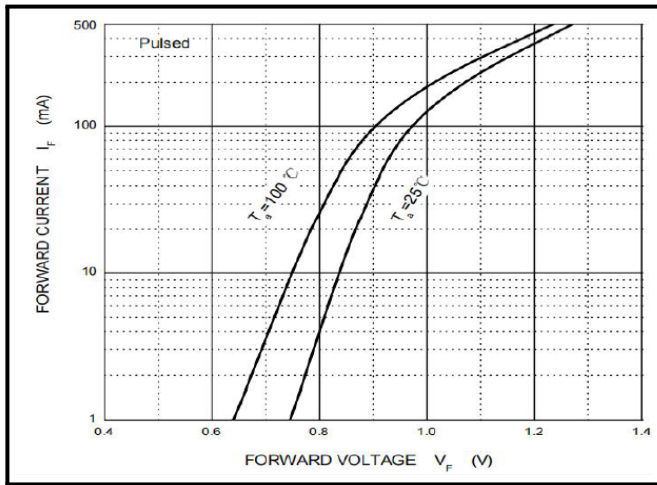


Figure 2: Reverse Characteristics

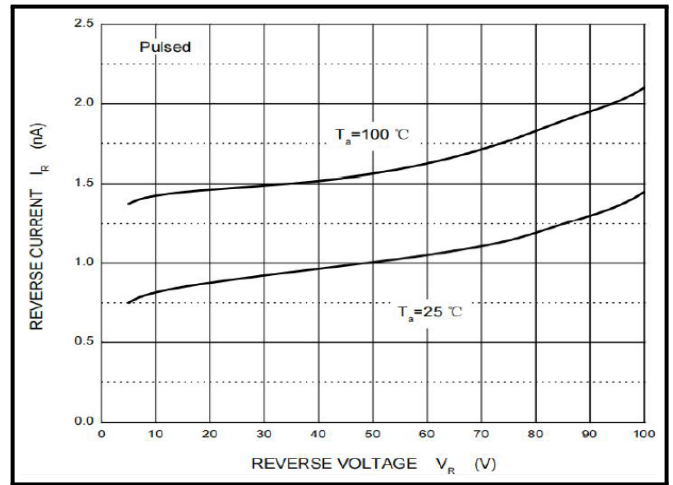


Figure 3: Capacitance Characteristics

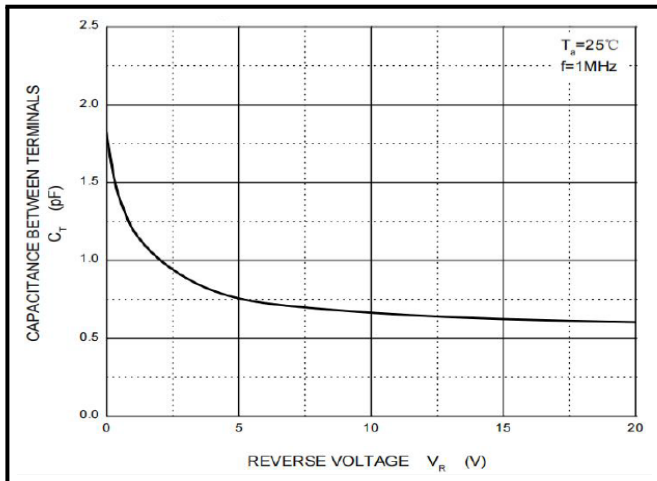
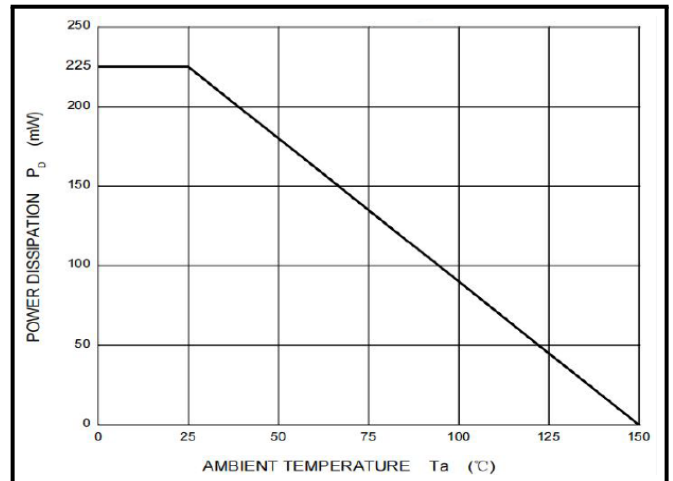


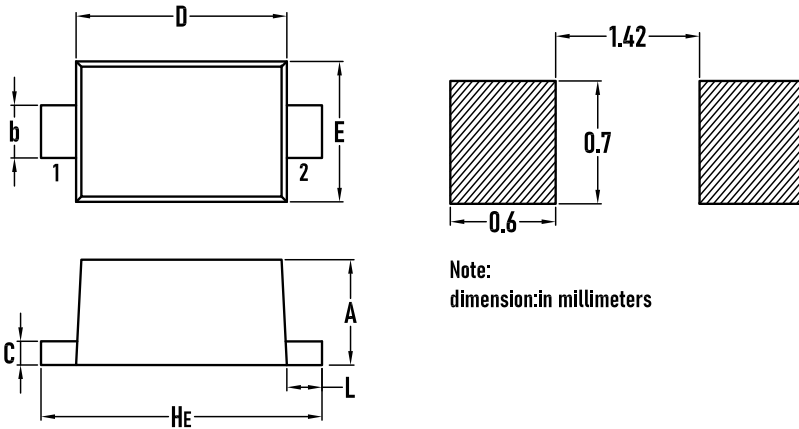
Figure 4: Power Derating Curve



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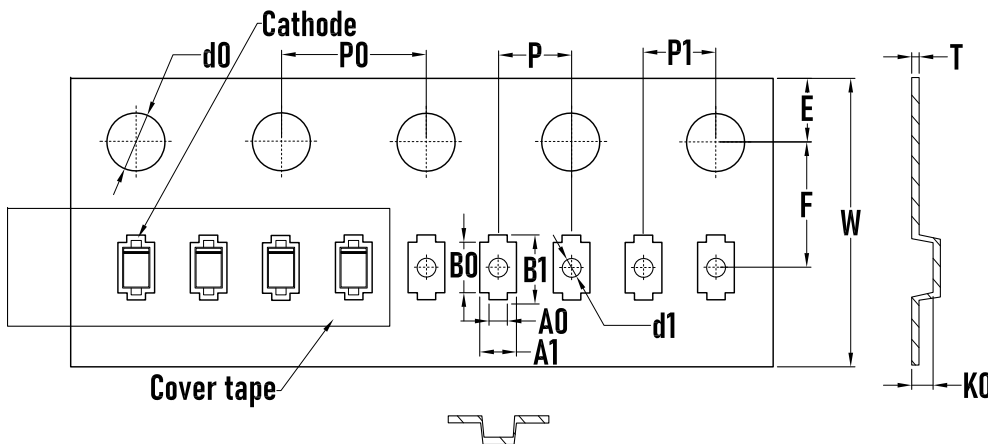
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Outline Drawing - SOD-523



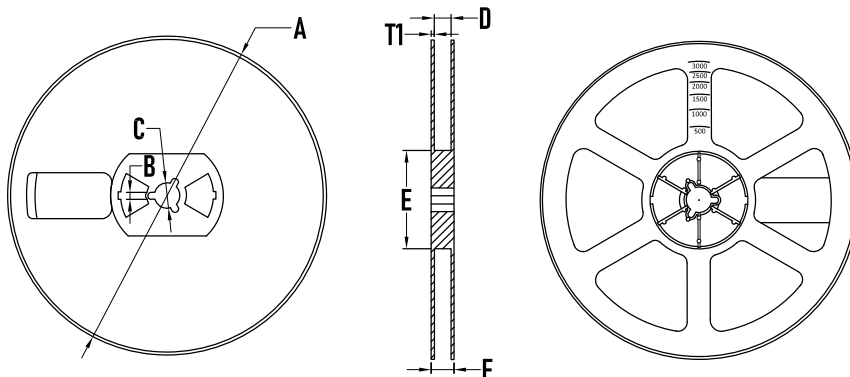
SYMBOL	MILLIMETER		INCHES	
	MIN.	MAX.	MIN.	MAX.
A	0.50	0.70	0.020	0.028
b	0.25	0.35	0.010	0.014
C	0.07	0.20	0.0028	0.0079
D	1.10	1.30	0.043	0.051
E	0.70	0.90	0.028	0.035
H _E	1.50	1.70	0.059	0.067
L	0.15	0.25	0.006	0.010

Packaging Tape - SOD-523



SYMBOL	MILLIMETER
A0	0.50±0.10
A1	1.00±0.10
B0	1.30±0.10
B1	1.80±0.10
d0	1.55±0.10
d1	0.50±0.05
E	1.75±0.10
F	3.50±0.10
K0	0.65±0.10
P	2.00±0.10
P0	4.00±0.10
P1	2.00±0.10
W	8.00±0.30
T	0.2 ±0.05

Packaging Reel



SYMBOL	MILLIMETER
A	177.8±0.2
B	2.7±0.2
C	13.5±0.2
D	9.6±0.3
E	54.5±0.2
F	12.3±0.3
T1	1.0±0.2
Quantity	3000PCS

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