

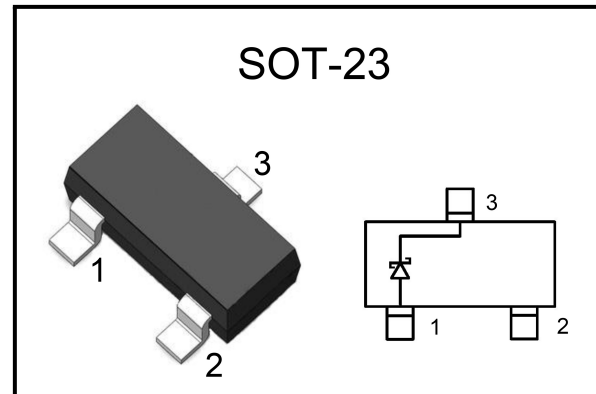
BAS16

Fast Switching Diode

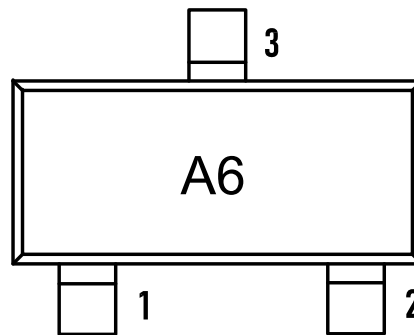
Features

- Fast Switching Speed
- High Conductance
- Fast reverse recovery time
- Low Capacitance.
- Low Leakage Current

Package



Marking



Ordering information

Order code	Package	Marking	Base qty	Delivery mode
BAS16	SOT-23	A6	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 _{RRM}	Peak Repetitive Peak Reverse Voltage	75	V
V _{RWM}	Working Peak Reverse Voltage		
V _R	DC Blocking Voltage		
I _O	Average Rectified Output Current	150	mA
I _{FM}	Forward Continuous Current	300	mA
I _{FSM}	Non-repetitive Peak Forward Surge Current @8.3mS	2.0	A
P _D	Power Dissipation	225	mW
R _{θJA}	Typical thermal resistance	556	°C/ W
T _J	Operating junction Temperature Range	-55 to +150	°C
T _{STG}	Storage temperature Range	-55 to +150	°C

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BAS16

Fast Switching Diode

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	Reverse voltage leakage current	V _R =75V	—	—	1	μA
V _F	Forward voltage	I _F =1mA	—	—	0.715	V
		I _F =10mA	—	—	0.855	
		I _F =50mA	—	—	1.0	
		I _F =150mA	—	—	1.25	
C _j	Type junction capacitance	V _R =0V, f=1MHZ	—	2	—	pF
T _{rr}	Reverse recovery time	I _F =I _R =10mA, I _{rr} =0.1X I _R , R _L =100Ω	—	—	6	nS



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

Figure 1: Forward Characteristics

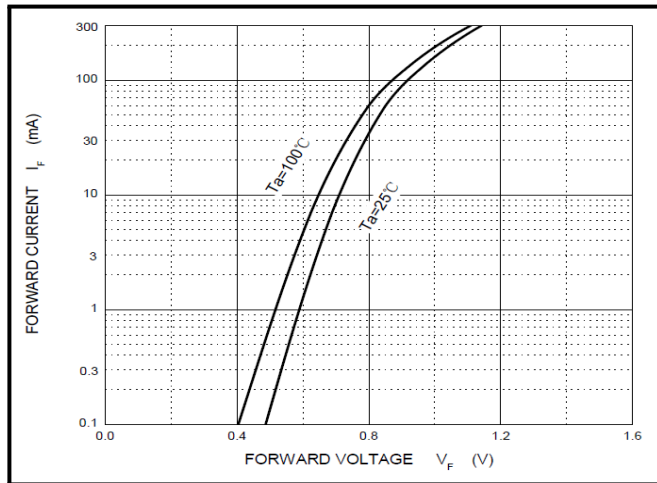


Figure 2: Reverse Characteristics

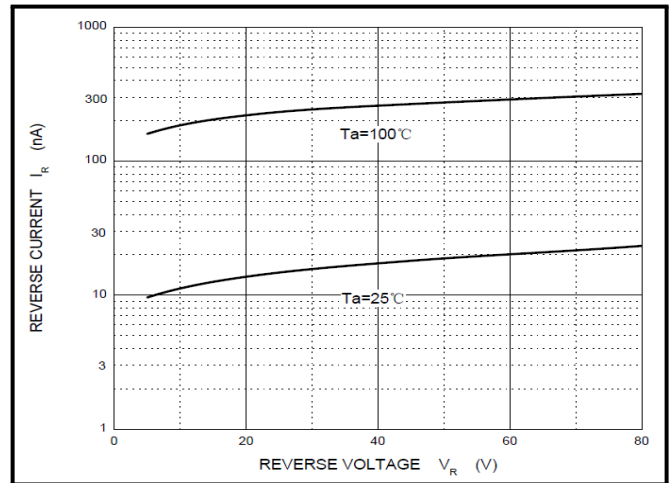


Figure 3: Capacitance Characteristics

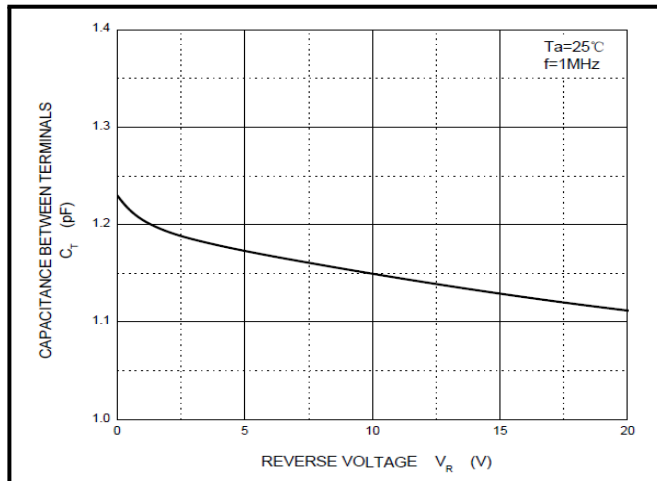
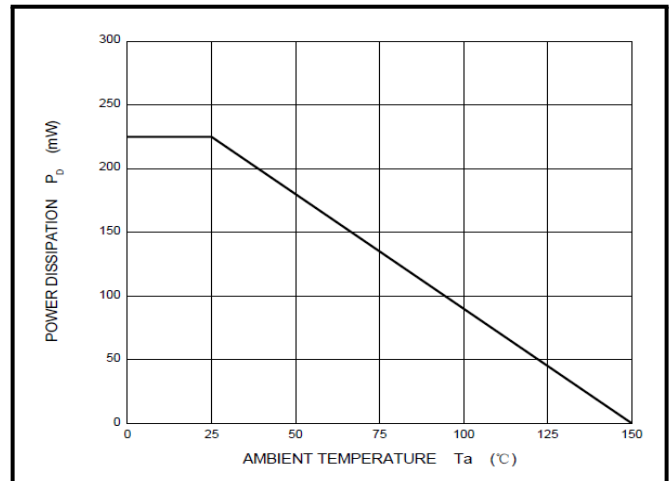


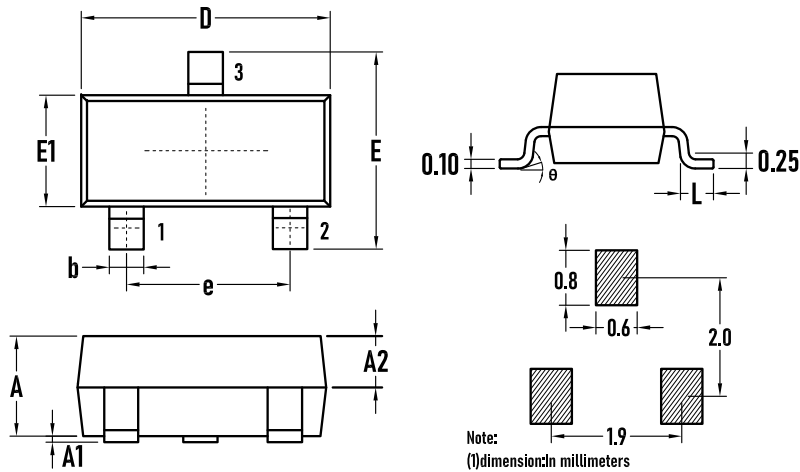
Figure 4: Power Derating Curve



BAS16

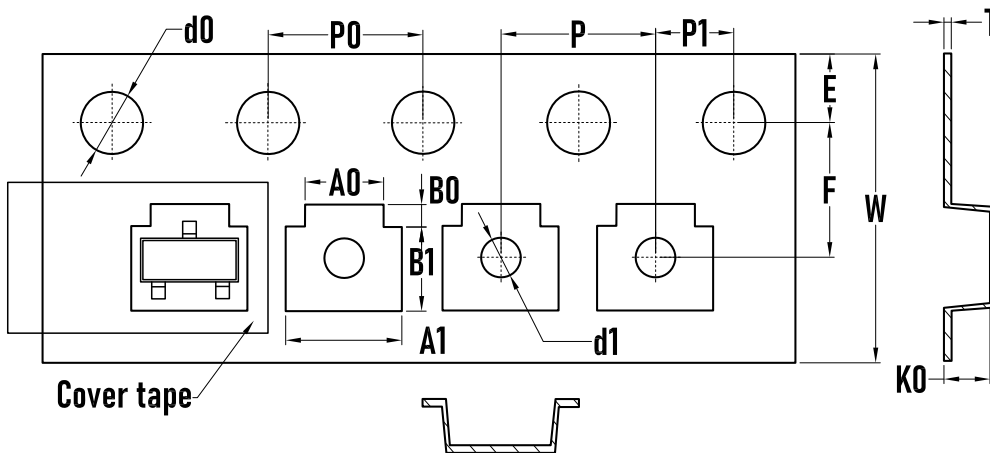
Fast Switching Diode

Outline Drawing - SOT-23



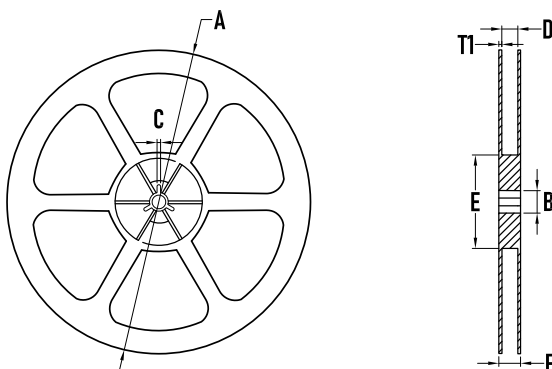
SYMBOL	MILLIMETER		
	MIN.	Typ.	MAX.
A	0.90	1.00	1.10
A1	0.01	—	0.10
A2	0.50	0.60	0.70
D	2.80	2.90	3.00
b	0.25	0.35	0.45
E	2.10	2.30	2.50
E1	1.20	1.30	1.40
e	1.80	1.90	2.00
L	0.25	0.35	0.45
θ	0	—	8°

Packaging Tape - SOT-23



SYMBOL	MILLIMETER
A0	2.10±0.10
A1	3.10±0.10
B0	0.65±0.10
B1	2.75±0.10
d0	1.55±0.10
d1	1.00±0.05
E	1.75±0.10
F	3.50±0.10
K0	1.10±0.10
P	4.00±0.10
P0	4.00±0.10
P1	2.00±0.10
W	8.00±0.30
T	0.20 ±0.05

Packaging Reel



SYMBOL	MILLIMETER
A	177.8±0.2
B	3.1
C	13.50
D	9.6±0.3
E	75±0.2
F	12.3±0.3
T1	1.0±0.2
Quantity	3000PCS

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