BORN SEMICONDUCTOR

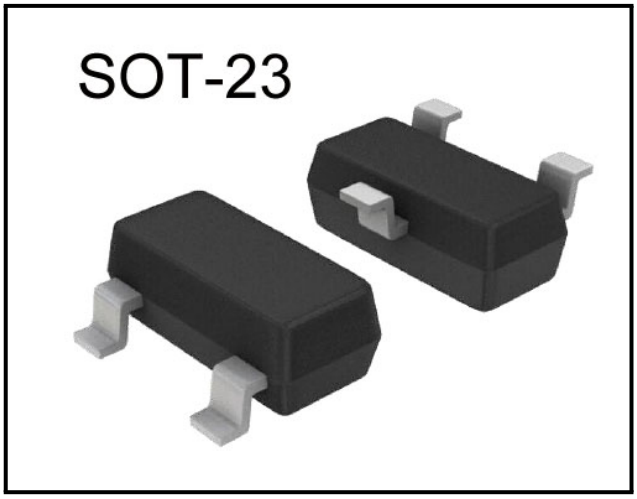
BAS70/-04/-05/-06

Schottky Barrier Diode

Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

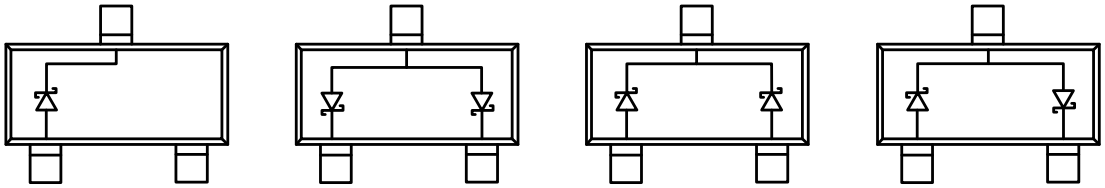
Package



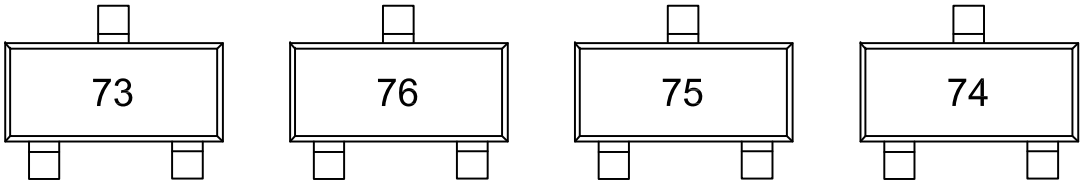
General Description

- Case: molded plastic
- Polarity: Color band denotes cathode
- Package: SOT-23 Plastic Package

Circuit



Marking



Ordering information

Order code	Package	Marking	Base qty	Delivery mode
BAS70	SOT-23	73	3K	Tape and reel
BAS70-04	SOT-23	74	3K	Tape and reel
BAS70-05	SOT-23	75	3K	Tape and reel
BAS70-06	SOT-23	76	3K	Tape and reel

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BAS70/-04/-05/-06

Schottky Barrier Diode

Maximum Ratings@T_A=25°C unless otherwise noted

Symbol	Parameters	Value	Unit
V_{RRM}	Repetitive Peak Reverse voltage	70	V
V_{RWM}	Working Peak Reverse Voltage		
V_R	DC Blocking Voltage		
$I_{F(AV)}$	Maximum average forward rectified current	70	mA
I_{FSM}	Non-repetitive peak forward surge current 8.3 ms singlehalf sine-wave	100	mA
P_d	Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	450	°C/W
T_j	Operating junction temperature range	-40 to +125	°C
T_{STG}	Storage temperature range	-55 to +150	°C

Electrical Characteristics@T_A=25°C unless otherwisenoted

Symbol	Parameters	Test conditions	Min	Max	Unit
V_{BR}	Reverse breakdown voltage	I_R=10uA	70	–	V
I_R	Reverse current	V_R=50V	–	100	nA
V_F	Forward voltage	I_F=1mA	–	410	mV
		I_F=15mA	–	1000	
C_D	Diode capacitance	V_R=0V,f=1MHz	–	2	pF
t_{rr}	Reverse recovery time	I_F=I_R=10mA, I_{rr}=1mA,R_L=100Ω	–	5	ns

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Schottky Barrier Diode

Typical Performance Characteristics(T_J = 25 °C, unless otherwise noted)

Figure 1: Forward Characteristics

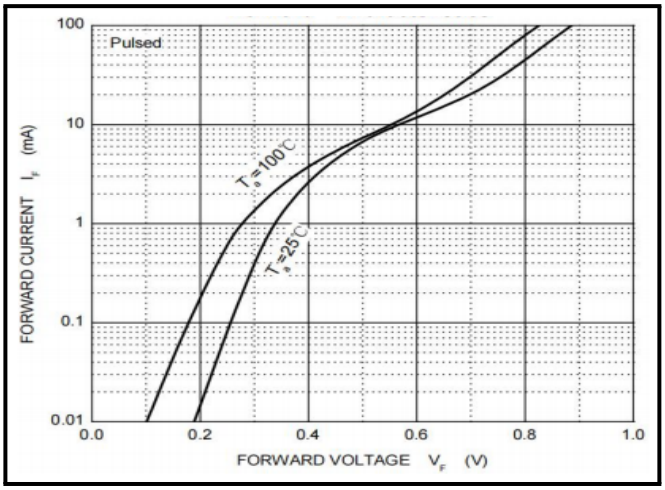


Figure 2:Reverse Characteristics

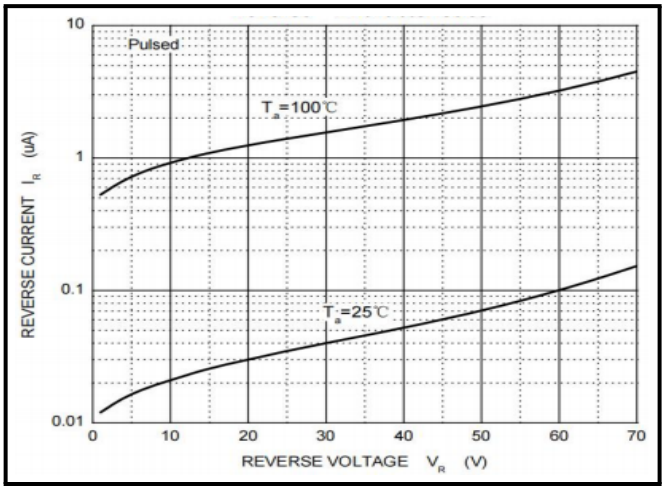


Figure 3:Capacitance Characteristics

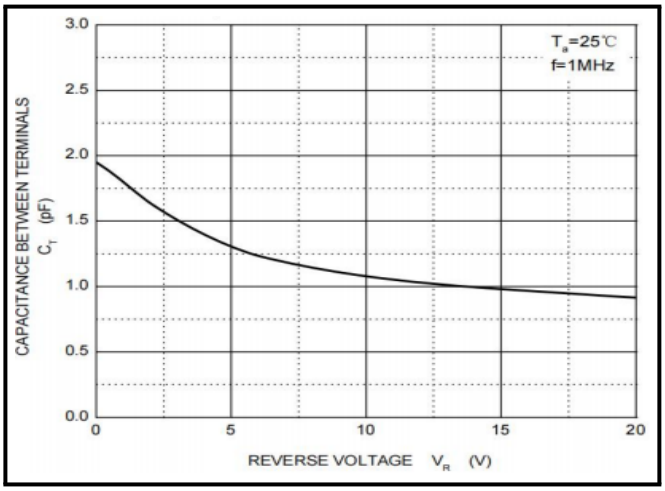
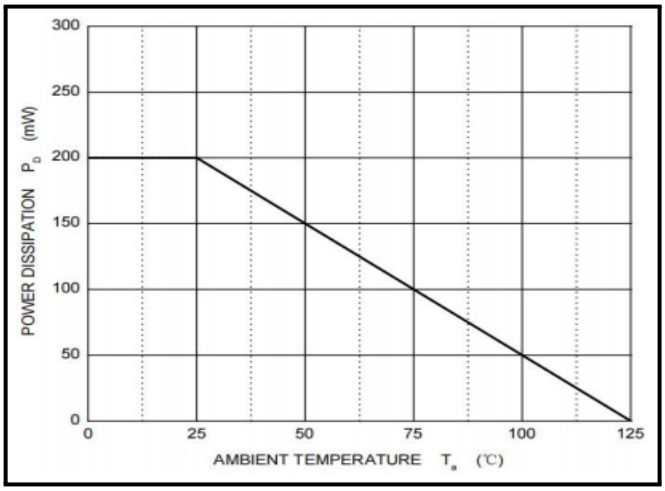


Figure 4:Power Derating Curve



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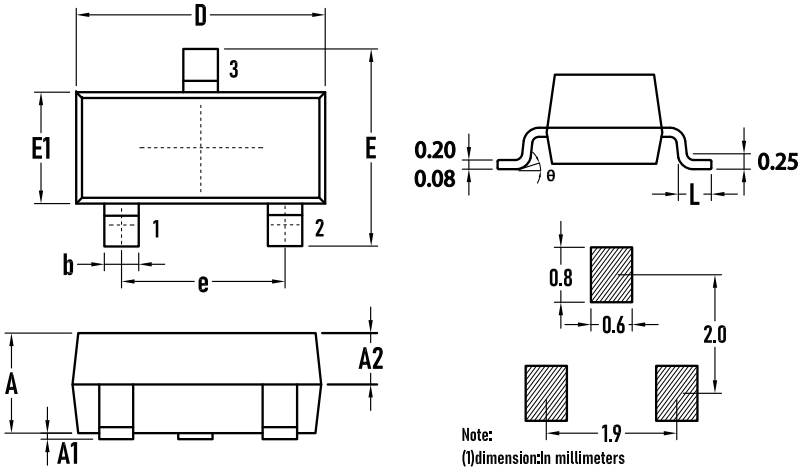
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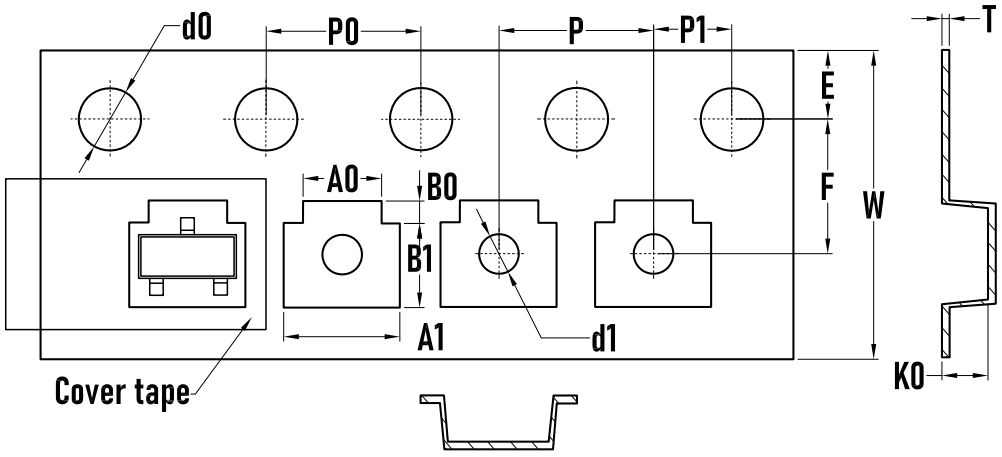
Schottky Barrier Diode

Outline Drawing - SOT-23



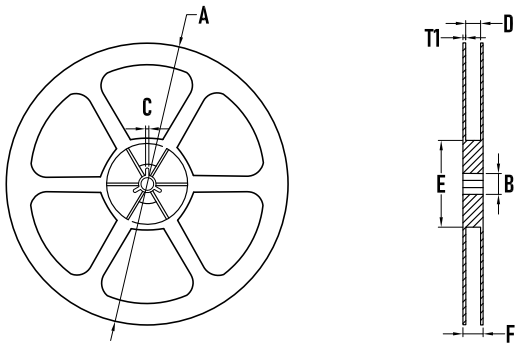
SYMBOL	MILLIMETER		
	MIN.	Typ.	MAX.
A	0.90	1.00	1.10
A1	0.01	–	0.10
A2	0.50	0.60	0.70
D	2.80	2.90	3.00
b	0.25	0.35	0.45
E	2.10	2.30	2.50
E1	1.20	1.30	1.40
e	1.80	1.90	2.00
L	0.25	0.35	0.45
θ	0	–	8°

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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