

SOT-23 Plastic-Encapsulate Switching Diode

FEATURES

- * Fast Switching Speed
- * For General Purpose Switching Applications
- * High Conductance
- * Low Current Leakage
- * Small Outline Surface Mount Package
- * RoHS compliant / Green EMC

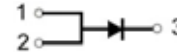
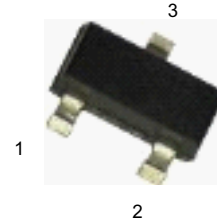
MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-0
- * SOT-23 Small Outline Plastic Package
- * Marking:JP

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, resistive or inductive load.

SOT-23



MAXIMUM RATINGS (Ta = 25 °C)

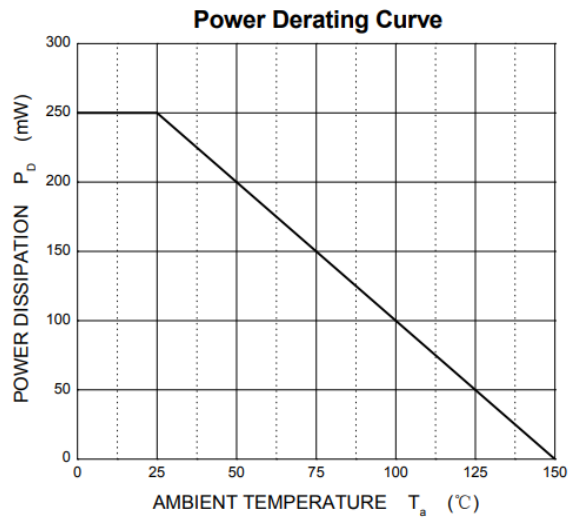
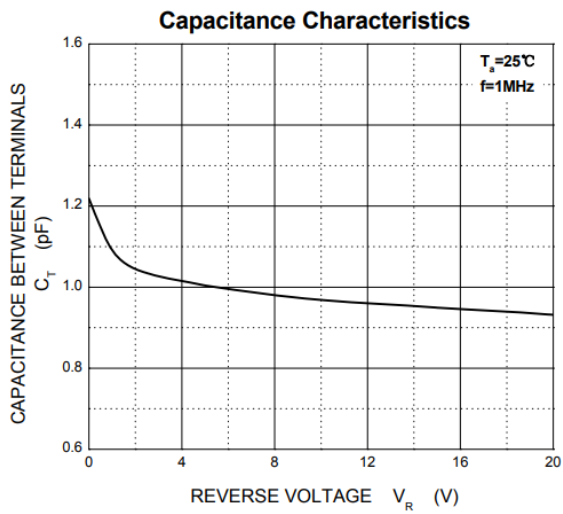
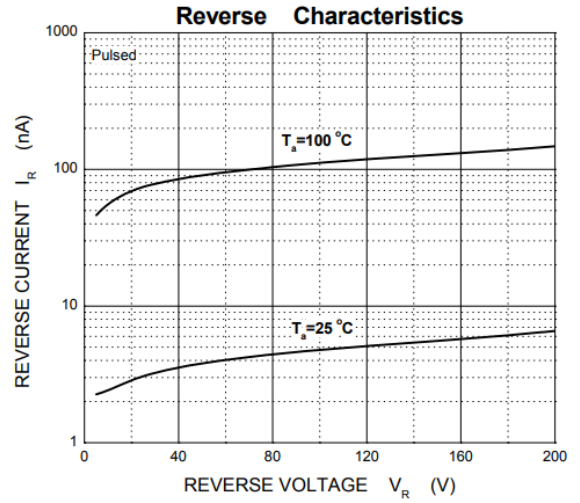
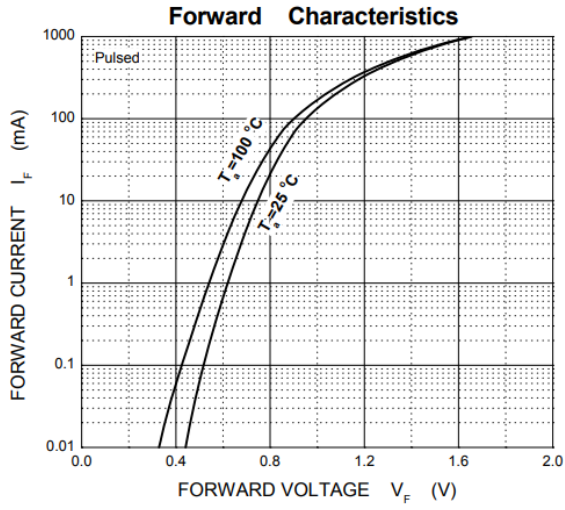
Parameters	Symbol	Value	Unit
Working Peak Reverse Voltage	V_{RWM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	120	V
Power Dissipation	P_d	250	mW
Average Rectified Output Current	I_o	200	mA
Non-Repetitive Peak Forward Surge Current @t=8.3mS	I_{FSM}	2.5	A
Current Squarad Time	I^2t	0.03	A ² Sec
Forward DC Current	I_F	200	mA
Repetitive Peak Forward Current	I_{FRM}	625	mA
Operating junction temperature	T_j	-55-+150	°C
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	500	°C /W

Notes:Valid provided that electrodes are kept at ambient temperature.

ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

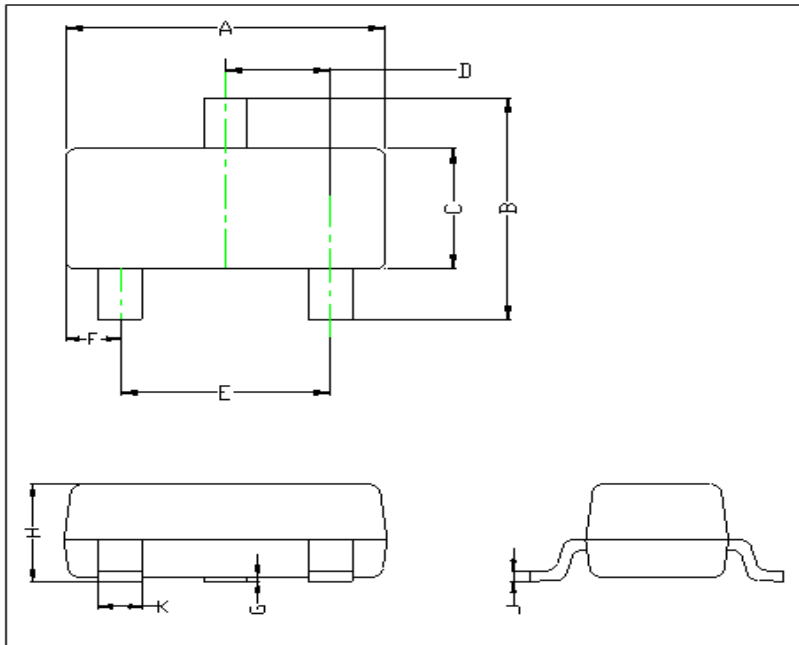
Symbols	Parameter	Test Condition	Limits		Unit
			Min	Max	
VR	Reverse breakdown voltage	IR=100uA	120	---	V
IR	Reverse Leakage Current	VR=100V	---	100	nA
VF	Forward Voltage	IF=100mA	---	1.0	V
		IF=200mA	---	1.25	
TRR	Reverse Recovery Time	IF= IR=30mA	---	50	nS
		RL=100Ω			
		IRR=3mA			
CD	Diodes capacitance	VR=0V, f=1MHZ	---	5	pF

RATING AND CHARACTERISTICS CURVES (BAS19)



PACKAGE DIMENSIONS

Package Outline : SOT23



SOT23 Package Outline

Symbol	Dimensions in mm	
	Min.	Max.
A	2.800	3.040
B	2.100	2.640
C	1.200	1.400
D	0.890	1.030
E	1.780	2.050
F	0.450	0.600
G	0.013	0.100
H	0.900	1.110
J	0.090	0.180
K	0.370	0.510

Note:

1. Halogen free ,EMC
2. Pb free solder
3. Lead thickness solder plating
4. Lead frame CAC-5
5. Other Tolerance ± 0.05
6. Dimensions are exclusive of Burrs Mold Flash and Tie Bar extrusions
7. Unit : mm

PACKAGING OF DIODE

REEL PACK

PACKAGE	PACKING CODE	REEL (EA)	COMPONENT SPACE(mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOT-23/-3L	-T	3,000	---	---	178	438*438*220	180,000	---

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