

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

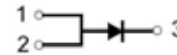
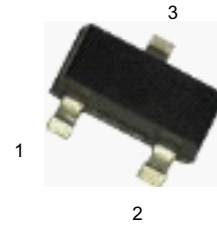
MECHANICAL DATA

- * 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)

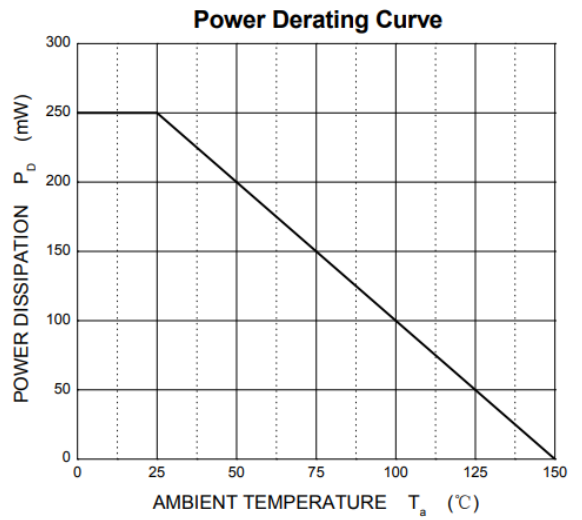
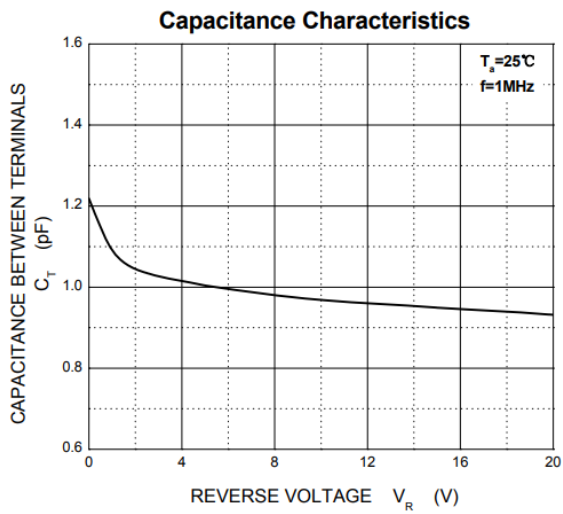
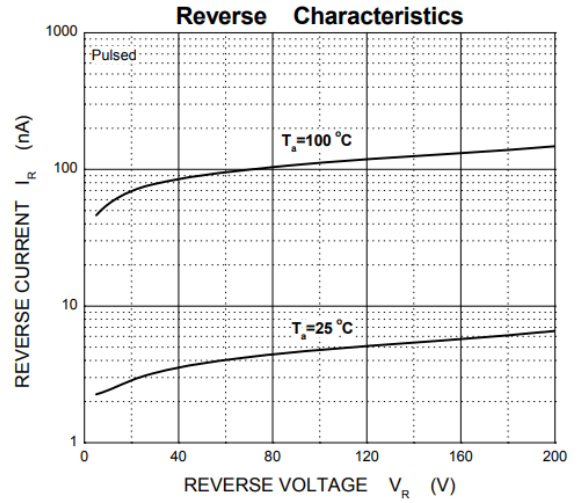
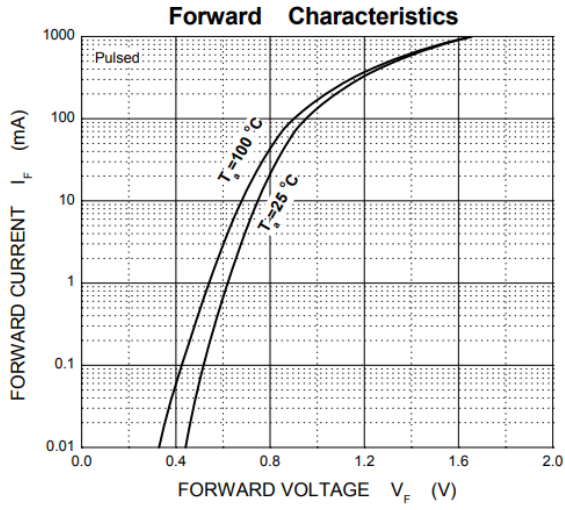
Parameters	Symbol	Value	Unit
Working Peak Reverse Voltage	V_{RWM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	120	V
Power Dissipation	P_d	250	mW
Average Rectified Output Current	I_o	200	mA
Non-Repetitive Peak Forward Surge Current @t=8.3mS	I_{FSM}	2.5	A
Current Squarad Time	I^2t	0.03	A ² Sec
Forward 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)

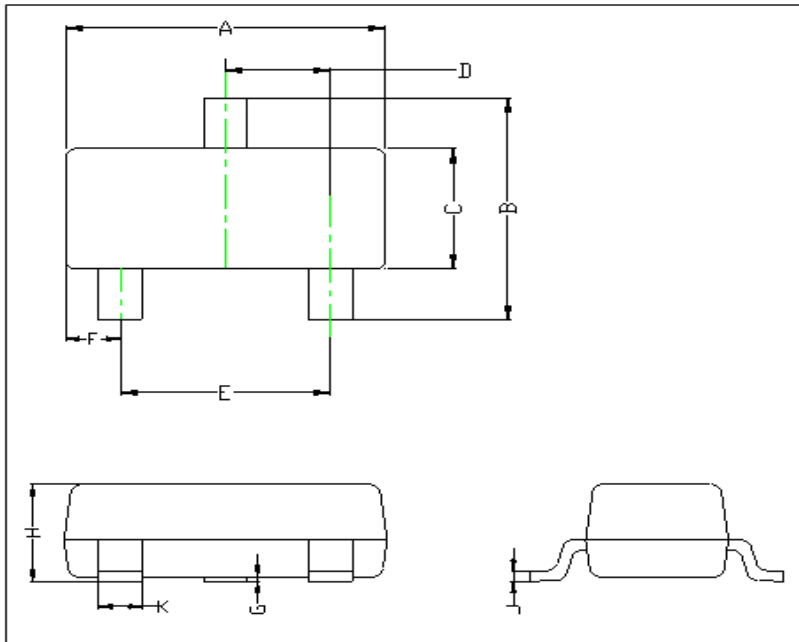
Symbols	Parameter	Test Condition	Limits		Unit
			Min	Max	
VR	Reverse breakdown voltage	IR=100uA	120	---	V
IR	Reverse Leakage Current	VR=100V	---	100	nA
VF	Forward Voltage	IF=100mA	---	1.0	V
		IF=200mA	---	1.25	
TRR	Reverse Recovery Time	IF= IR=30mA	---	50	nS
		RL=100Ω			
		IRR=3mA			
CD	Diodes capacitance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

DISCLAIMER NOTICE

Rectron Inc reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. Rectron Inc or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on RECTRON data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. Rectron Inc does not assume any liability arising out of the application or use of any product or circuit.

Rectron products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of Rectron Inc. Customers using or selling Rectron components for use in such applications do so at their own risk and shall agree to fully indemnify Rectron Inc and its subsidiaries harmless against all claims, damages and expenditures.