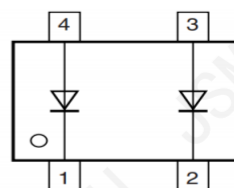


Description

High voltage switching diode



SOT143

Absolute Maximum Ratings($T_a=25^{\circ}\text{C}$)

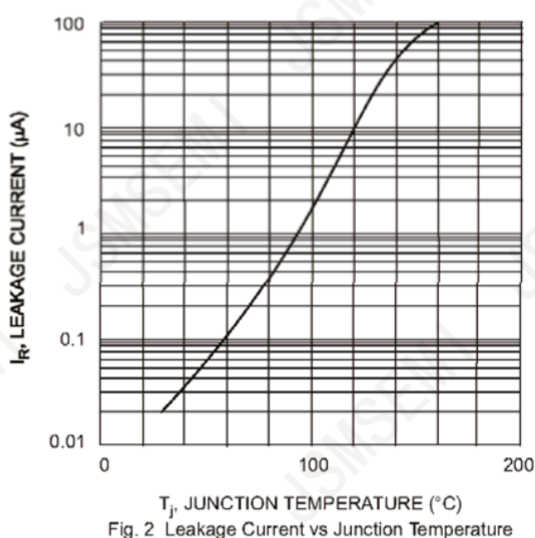
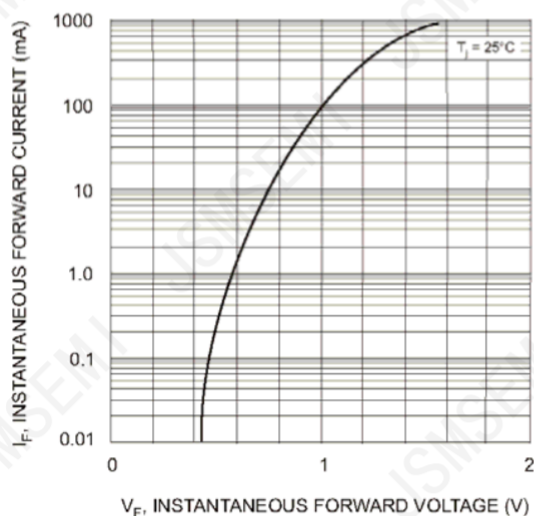
Parameter	Symbol	Value	Unit
Maximum Repetitive Reverse Voltage	V_{RRM}	250	V
Reverse Voltage	V_R	200	V
Forward Current	$I_{F(AV)}$	400	mA
Repetitive Peak Forward Current	I_{FRM}	625	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	1.7	A
at $t = 10\text{ ms}$		3	
at $t = 100\text{ }\mu\text{s}$		9	
at $t = 1\text{ }\mu\text{s}$			
Power Dissipation	P_{tot}	350	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	357	$^{\circ}\text{C/W}$
Operating Junction and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	$^{\circ}\text{C}$

Ordering Information

Order number	Package	Operation Temperature Range	MSL Grade	Ship, Quantity	Green
BAV23,215-JSM	SOT-23	-65 to+150	3	T&R,3000	Rohs

Characteristics at $T_a = 25^\circ\text{C}$

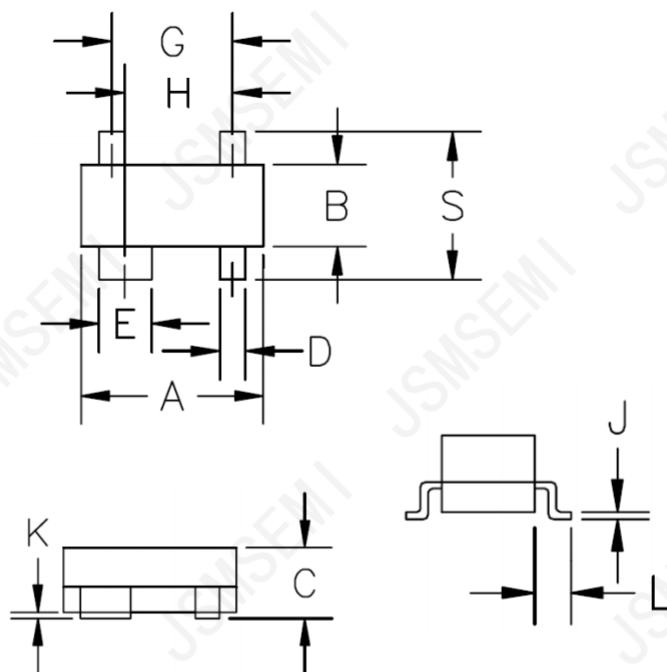
Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100\ \mu\text{A}$	$V_{(BR)R}$	250	-	V
Forward Voltage at $I_F = 100\ \text{mA}$ at $I_F = 200\ \text{mA}$	V_F	- -	1 1.25	V
Reverse Current at $V_R = 200\ \text{V}$, $T_j = 25^\circ\text{C}$ at $V_R = 200\ \text{V}$, $T_j = 150^\circ\text{C}$	I_R	- -	100 100	nA μA
Total Capacitance at $V_R = 0\ \text{V}$, $f = 1\ \text{MHz}$	C_{tot}	-	5	pF
Reverse Recovery Time at $I_F = I_R = 30\ \text{mA}$, $t_{rr} = 0.1 \times I_R$, $R_L = 100\ \Omega$	t_{rr}	-	50	ns



Package Outline

Plastic surface mounted package

SOT-143



DIMENSIONS					
DIMN	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	—
B	.047	.055	1.20	1.40	—
C	.031	.047	.80	1.20	—
D	.014	.018	.37	.510	—
E	.030	.035	.76	.940	—
G	.076 BSC		1.92 BSC		—
H	.068 BSC		1.72 BSC		—
J	.003	.005	.085	.180	—
K	.002	.005	.013	0.10	—
L	.010	.022	—	.55	REF
S	.082	.104	2.10	2.64	—

Revision History

Rev.	Change	Date
V1.0	Initial version	6/27/2021

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