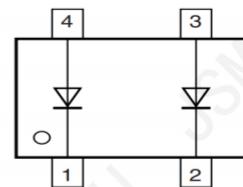


## Description

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 at $t = 10\text{ ms}$ at $t = 100\text{ }\mu\text{s}$ at $t = 1\text{ }\mu\text{s}$	$I_{FSM}$	1.7 3 9	A
Power Dissipation	$P_{tot}$	350	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	357	$^\circ\text{C}/\text{W}$
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 $I_R = 100 \mu\text{A}$	$V_{(\text{BR})R}$	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 $\mu\text{A}$
Total Capacitance at $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$	$C_{\text{tot}}$	-	5	pF
Reverse Recovery Time at $I_F = I_R = 30 \text{ mA}$ , $I_{\text{rr}} = 0.1 \times I_R$ , $R_L = 100 \Omega$	$t_{\text{rr}}$	-	50	ns

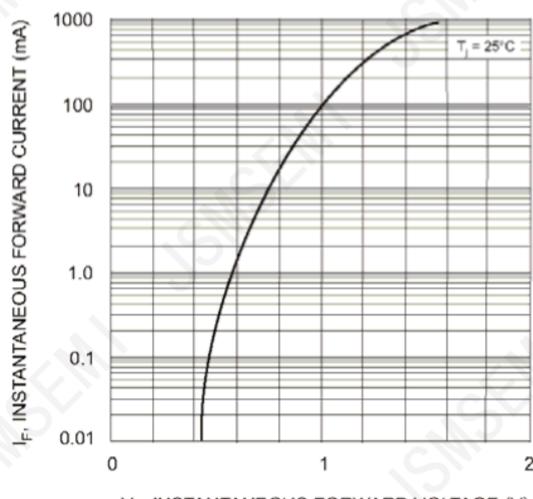


Fig. 1 Forward Characteristics

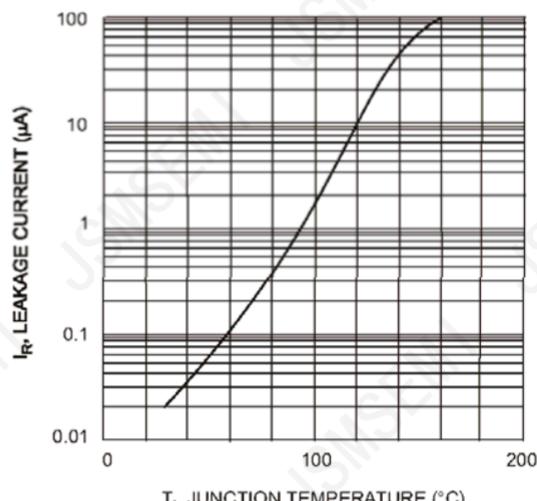
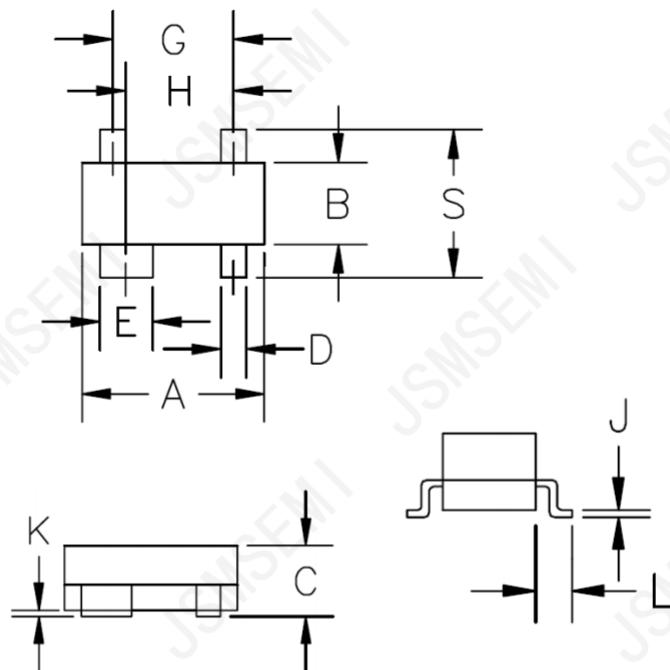


Fig. 2 Leakage Current vs Junction Temperature

## 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	.010	—
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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