



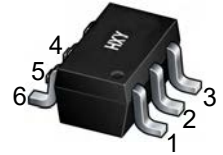
## Features

Fast Switching Speed.

High Conductance.

For General Purpose Switching Applications.

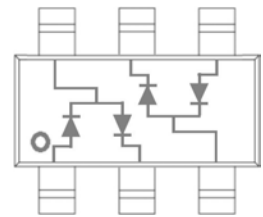
Surface Mount Package Ideally Suited for Automatic Insertion.



SOT-363

## Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BAV99S,115	SOT-363	K1	3000



Pin 1

## Maxmim Ratings (Ta=25 unless otherwise noted)

Symbol	Parameter	Value	Unit
$V_R$	Reverse Voltage	75	V
$V_{RRM}$	Reverse Voltage	85	V
$I_F$	Forward Current	150	mA
$I_{FRM}$	Repetitive Peak Forward Current	0.45	A
$I_{FSM}$	Non-repetitive Peak Forward Surge Current@8.3mS	2.5	A
$P_d$	Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	625	$^{\circ}C/W$
$T_J$	Operation Junction Temperature Range	-40~+150	$^{\circ}C$
$T_{STG}$	Storage Temperature Range	-55~+150	$^{\circ}C$

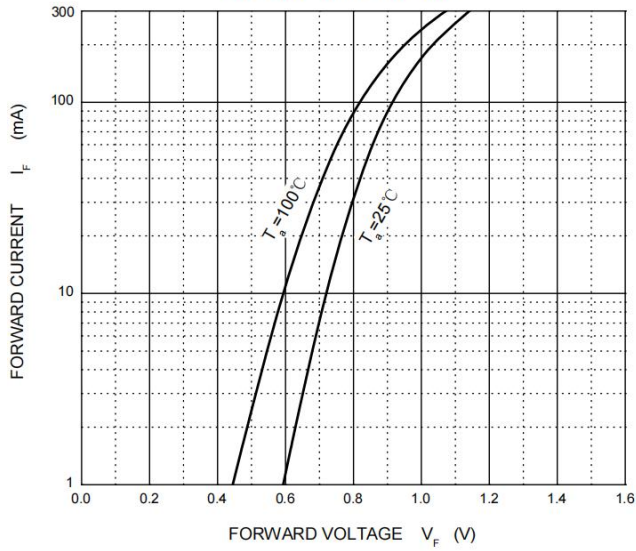
## Electrcal Characteristics (Ta=25 unless otherwise noted)

Symbol	Parameter	Test conditions	Min	Max	Unit
$V_{(BR)}$	Reverse breakdown voltage	$I_R=100\mu A$	70		V
$I_R$	Reverse current	$V_R=75V$		1	$\mu A$
$V_F$	Forward voltage	$I_F=1mA$		0.715	V
		$I_F=10mA$		0.855	V
		$I_F=50mA$		1	V
		$I_F=150mA$		1.25	V
$C_T$	Capacitance between terminals	$V_R=0V, f=1MHz$		1.5	pF
$t_{rr}$	Reverse recovery time	$I_F=I_R=10mA, I_{rr}=0.1X I_R, R_L=100\Omega$		6	nS

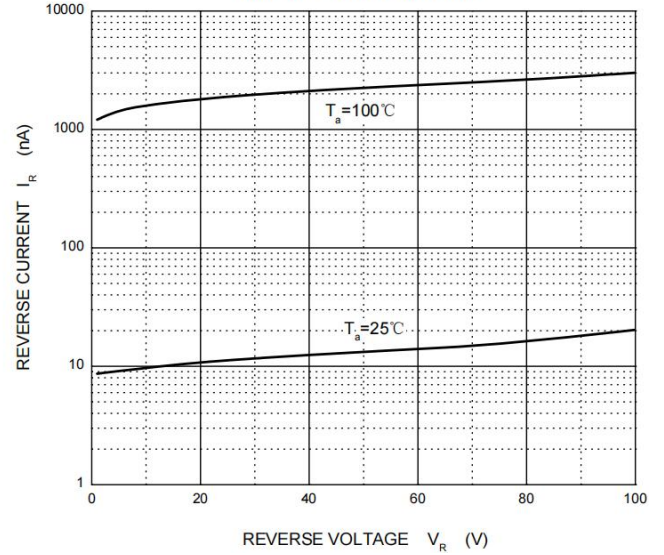


### Typical Characteristics

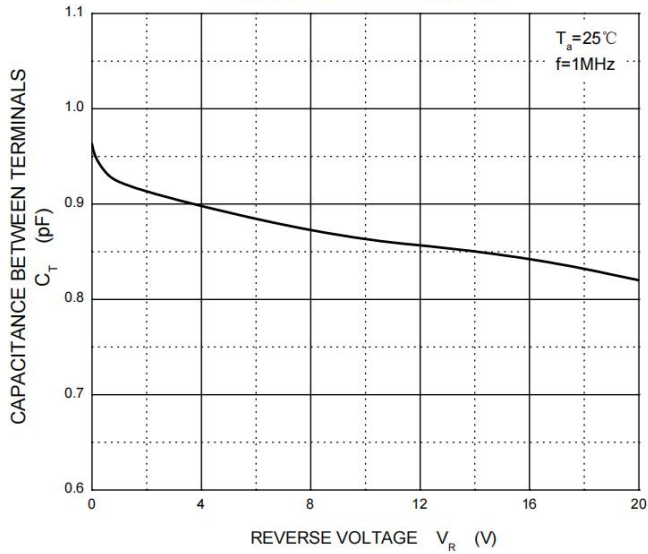
Forward Characteristics



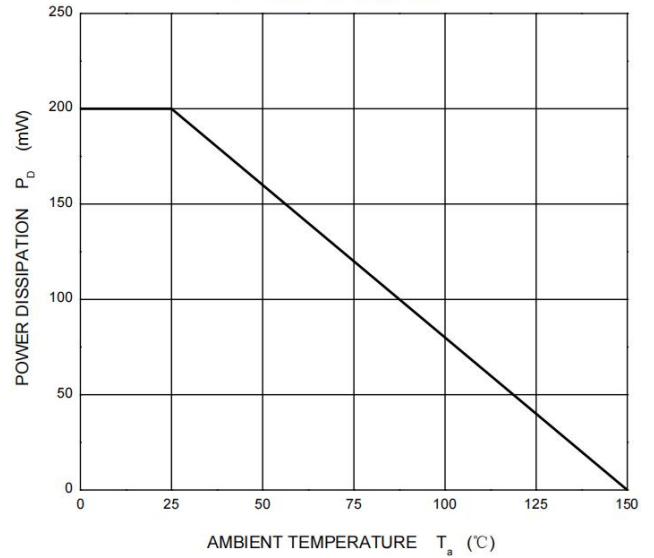
Reverse Characteristics



Capacitance Characteristics

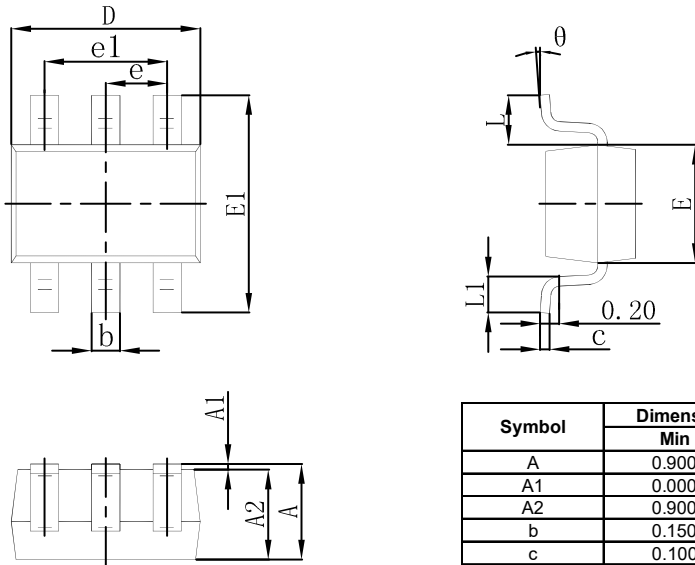


Power Derating Curve



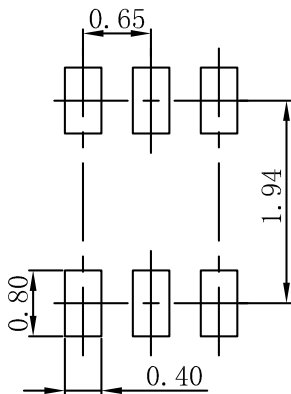


### SOT-363 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.150	0.350	0.006	0.014
c	0.100	0.150	0.004	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.400	0.085	0.094
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
theta	0°	8°	0°	8°

### SOT-363 Suggested Pad Layout



**Note:**

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05$ mm.
3. The pad layout is for reference purposes only.



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