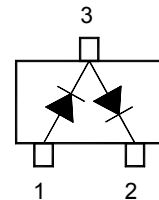
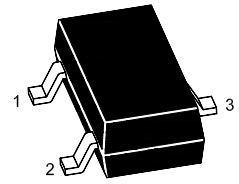


### Features

- For surface mount applications
- Fast reverse recovery time
- Ideal for automated placements
- Lead free in comply with EU RoHS2011/65/EU directives

### SOT-23



### Maximum Ratings

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	85	V
Continuous Reverse voltage	$V_R$	75	V
Continuous forward current (double diode load)	$I_F$	200	mA
Peak Forward Surge Current at $t = 1$ s at $t = 1$ ms at $t = 1$ $\mu$ s	$I_{FSM}$	0.5 1 4.5	A
Power Dissipation	$P_D$	350	mW
Junction Temperature	$T_J$	150	°C
Storage Temperature Range	$T_{STG}$	-65 to +150	°C

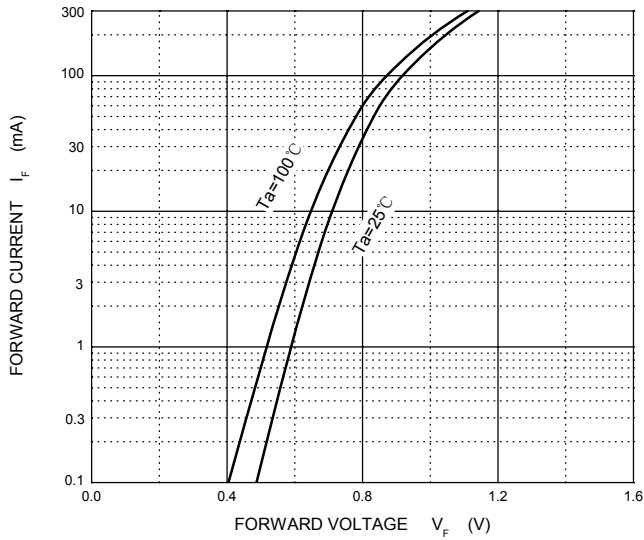
### Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

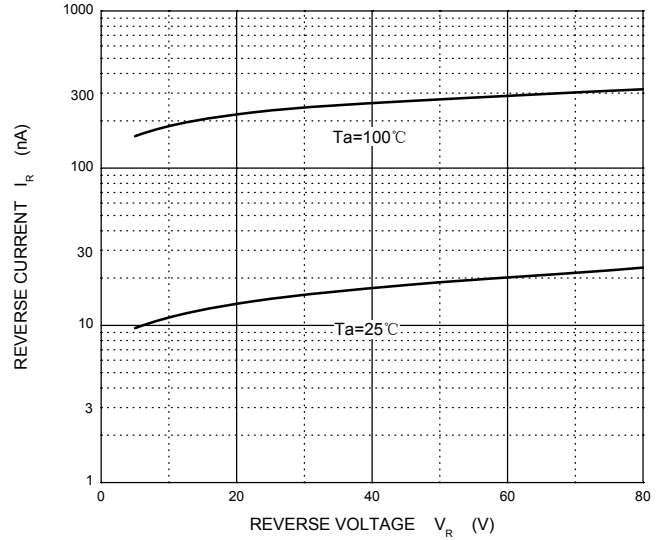
Forward Voltage at $I_F = 1$ mA at $I_F = 10$ mA at $I_F = 50$ mA at $I_F = 150$ mA	$V_F$	0.715 0.855 1 1.25	V
Reverse Current at $V_R = 25$ V at $V_R = 75$ V at $V_R = 25$ V, $T_J = 150$ °C at $V_R = 75$ V, $T_J = 150$ °C	$I_R$	30 1 30 50	nA $\mu$ A $\mu$ A $\mu$ A
Typical Junction Capacitance at $V_R = 4$ V, $f = 1$ MHz	$C_J$	1.5	pF
Maximum Reverse Recovery Time	$t_{rr}$	4	nS

## Typical Characteristic Curves

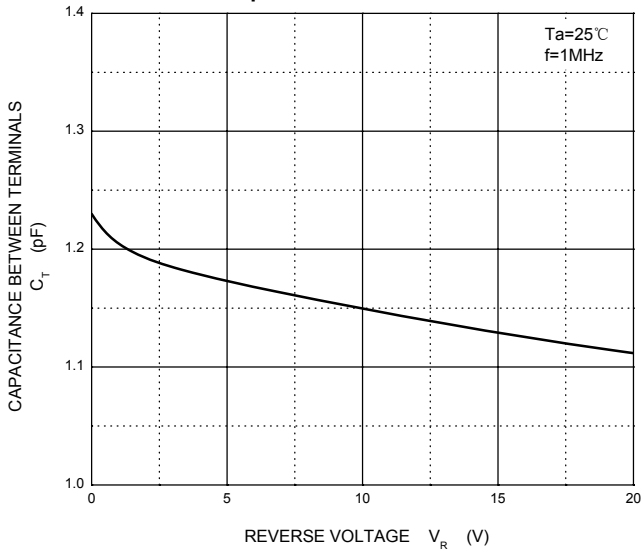
Forward Characteristics



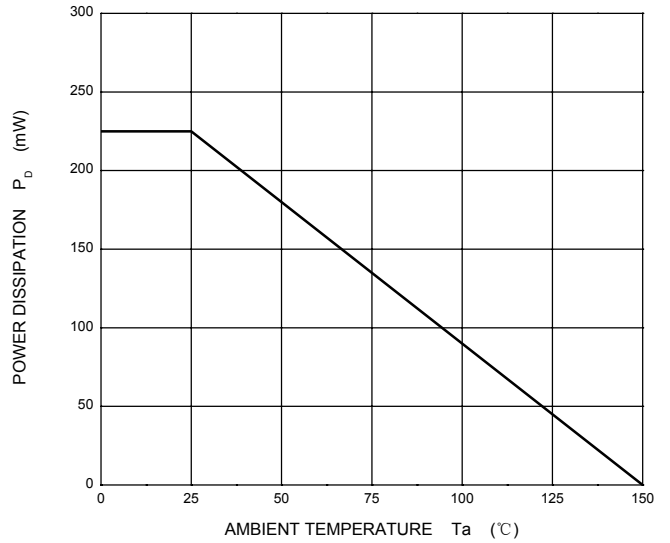
Reverse Characteristics



Capacitance Characteristics



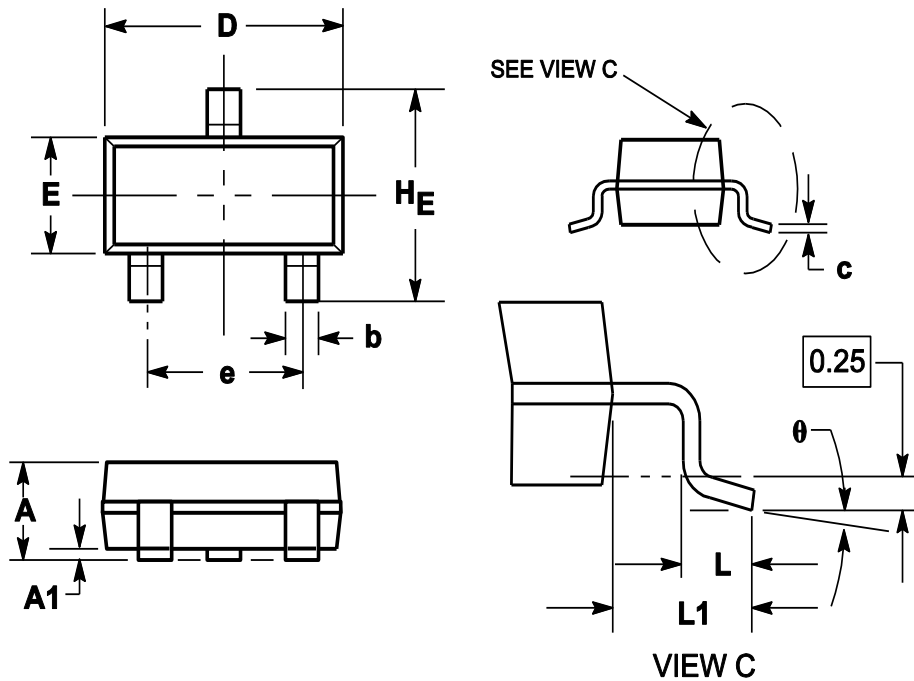
Power Derating Curve



### Package Outline

SOT-23

Dimensions in mm



Symbol	Dimensions in millimeter		
	Min.	Typ.	Max.
A	0.900	1.025	1.150
A1	0.000	0.050	0.100
b	0.300	0.400	0.500
c	0.080	0.115	0.150
D	2.800	2.900	3.000
E	1.200	1.300	1.400
HE	2.250	2.400	2.550
e	1.800	1.900	2.000
L1	0.550REF		
L	0.300		0.500
θ	0°		8°

### Ordering Information

Device	Package	Reel Dimension (inch)	Shipping
BAV99	SOT-23	7	3,000