

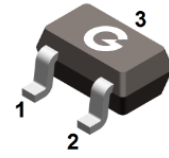
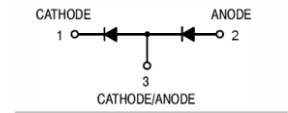
Features

- Fast switching speed
- High conductance

HF

Mechanical Data

- Case: SOT-323
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208



SOT-323

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
BAV99RW	SOT-323	3000 pcs / Tape & Reel	F7

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Peak Reverse Voltage	V _{RRM}	70	V
DC Blocking Voltage	V _R	70	V
Forward Continuous Current	I _F	215	mA
Average Rectified Output Current (averaged over any 20ms period) *2	I _{F(AV)}	715	mA
Non-Repetitive Forward Surge Current, 1s	I _{FSM}	0.5	A
Non-Repetitive Forward Surge Current, 1ms	I _{FSM}	1	A
Non-Repetitive Forward Surge Current, 1μs	I _{FSM}	2	A
Peak Forward Surge Current	I _{FM(surge)}	500	mA
Repetitive Peak Forward Surge Current	I _{FRM}	450	mA

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	200	mW
Thermal Resistance Junction-to-Air *1	R _{θJA}	466	°C/W
Thermal Resistance Junction-to-Case *1	R _{θJC}	250	°C/W
Thermal Resistance Junction-to-Lead *1	R _{θJL}	271	°C/W
Operating Junction Temperature Range	T _J	-65 ~ +150	°C
Storage Temperature Range	T _{STG}	-65 ~ +150	°C

Notes:

1. The data tested by surface mounted on a 15mm * 15mm * 1mm FR4-epoxy P.C.B
2. FR-5 = 1.0 * 0.75 * 0.062 in

Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 100\mu\text{A}$	70	-	-	V
Forward Voltage	V_F	$I_F = 1\text{mA}$	-	-	0.715	V
		$I_F = 10\text{mA}$	-	-	0.855	V
		$I_F = 50\text{mA}$	-	-	1.000	V
		$I_F = 150\text{mA}$	-	-	1.250	V
Maximum Peak Reverse Current	I_R	$V_R = 70\text{V}$	-	-	2.5	μA
Total Capacitance	C_J	$V_R = 0\text{V}, f = 1.0\text{MHz}$	-	-	1.5	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10\text{mA}$ $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$	-	-	6	ns
Forward Recovery Voltage	V_{FR}	$I_F = 10\text{mA}, t_r = 20\text{ns}$	-	-	1.75	V

Ratings and Characteristics Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

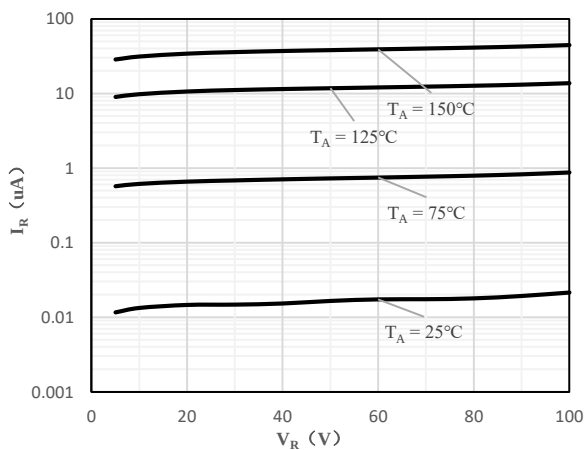


Fig 1 Typical Reverse Characteristic

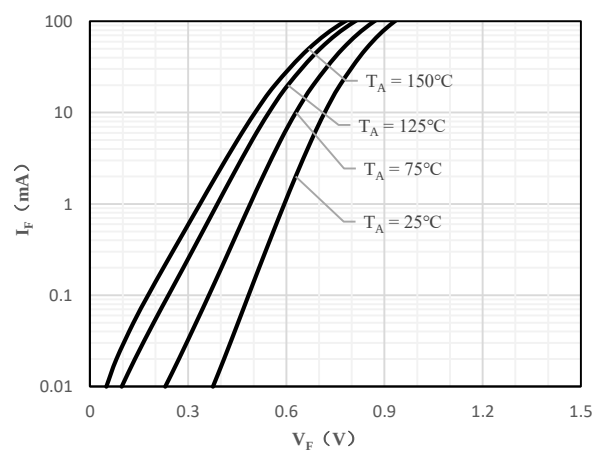


Fig 2 Typical Forward Characteristics

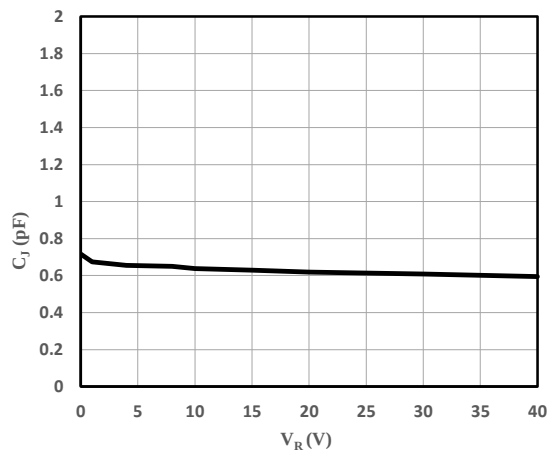


Fig 3 Capacitance vs. Reverse Voltage

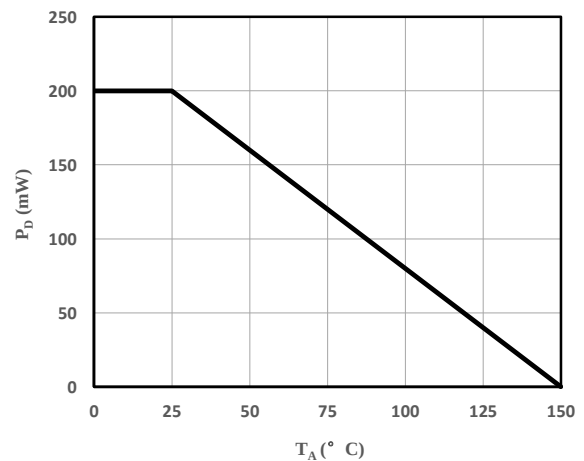
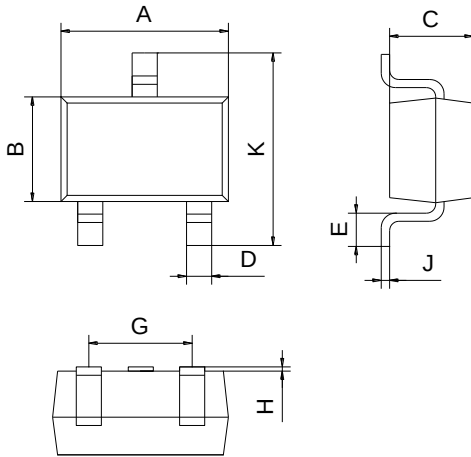


Fig 4 Power Derating Curve

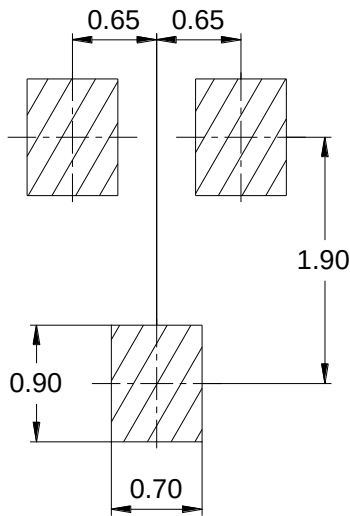
Package Outline Dimensions (Unit: mm)



SOT-323		
Dimension	Min.	Max.
A	2.00	2.20
B	1.15	1.35
C	0.90	1.10
D	0.15	0.35
E	0.25	0.40
G	1.20	1.40
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40

Mounting Pad Layout (Unit: mm)

SOT-323



Important Notice

Changzhou Galaxy Century Microelectronics (GME) reserves the right to make changes without further notice to any product information (copyrighted) herein to make corrections, modifications, improvements, or other changes. GME does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others.