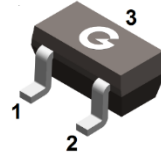
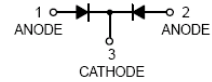


Features

- Ultra-small surface mount package
- Fast switching speed
- For general purpose switching applications
- Low conductance

HF



SOT-523

Mechanical Data

- Case: SOT-523
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
DAN222	SOT-523	3000 pcs / Tape & Reel	N

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V _{RM}	80	V
Reverse Voltage	V _R	80	V
Average Rectified Output Current	I _F	100	mA
Forward Continuous Current (Peak)	I _{FM}	300	mA
Peak Forward Surge Current, (t = 1μs)	I _{FSM}	2	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	150	mW
Thermal Resistance Junction-to-Air *1	R _{θJA}	150	°C/W
Thermal Resistance Junction-to-Case *1	R _{θJC}	85	°C/W
Thermal Resistance Junction-to-Lead *1	R _{θJL}	75	°C/W
Operating Junction Temperature Range	T _J	-55 ~ +150	°C
Storage Temperature Range	T _{STG}	-55 ~ +150	°C

Note 1: The data tested by surface mounted on a 1 inch² FR-4 board with 20Z copper

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 100\mu\text{A}$	80	-	-	V
Forward Voltage	V_F	$I_F = 100\text{mA}$	-	-	1.2	V
Maximum Peak Reverse Current	I_R	$V_R = 70\text{V}$	-	-	0.1	μA
Total Capacitance	C_J	$V_R = 6\text{V}, f = 1.0\text{MHz}$	-	-	3.5	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 5.0\text{mA}, I_{rr} = 0.1 \cdot I_R$ $R_L = 100\Omega, V_R = 6.0\text{V}$	-	-	4	ns

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

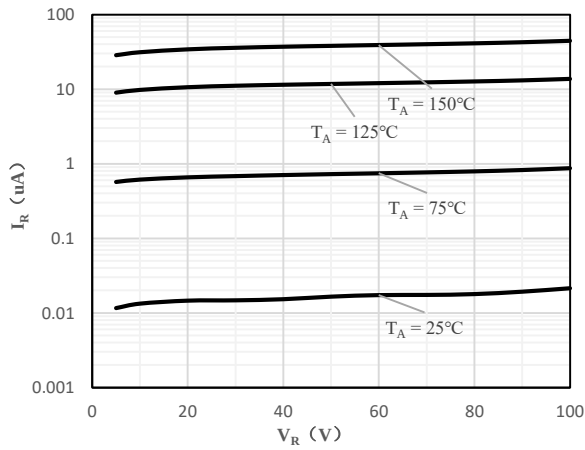


Fig 1 Typical Reverse Characteristic

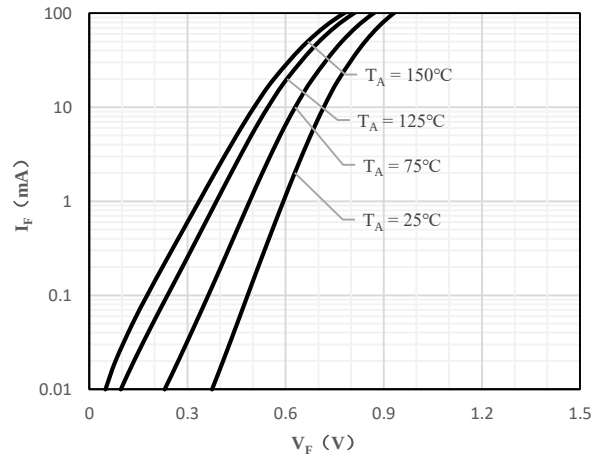


Fig 2 Typical Forward Characteristics

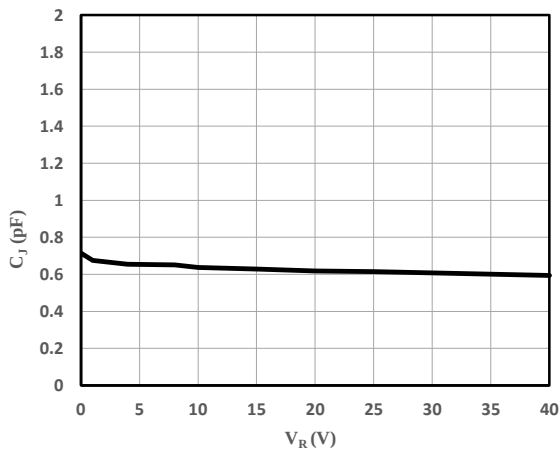
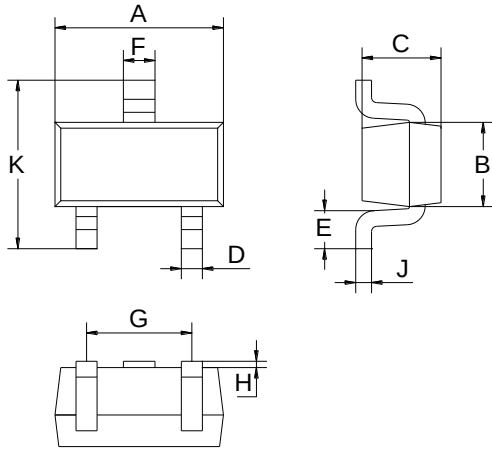


Fig 3 Capacitance vs. Reverse Voltage

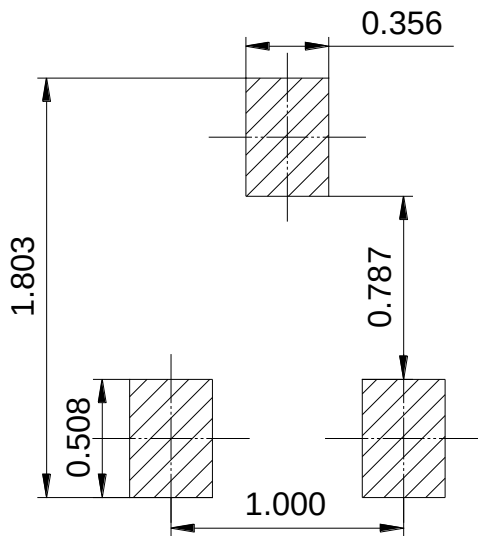
Package Outline Dimensions (Unit: mm)



SOT-523		
Dimension	Min.	Max.
A	1.50	1.70
B	0.75	0.85
C	0.60	0.80
D	0.15	0.30
E	0.30	0.40
F	0.25	0.40
G	0.90	1.10
H	0.02	0.10
J	0.08	0.18
K	1.45	1.75

Mounting Pad Layout (Unit: mm)

SOT-523



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.