

Features

- Ultra small mold type
- High reliability
- Super low V_F

HF

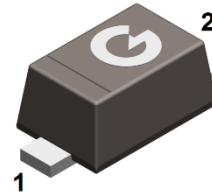
Application

- Small current rectification

Mechanical Data

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

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SOD-523

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
RB521S-60	SOD-523	3000 pcs / Tape & Reel	2

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	60	V
DC Reverse Voltage	V_R	60	V
Maximum Average Forward Output Current	$I_{F(AV)}$	0.2	A
Peak Forward Surge Current (8.3ms single half sine-wave)	I_{FSM}	1	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	150	mW
Thermal Resistance Junction-to-Air	$R_{\theta JA}$	667	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Case	$R_{\theta JC}$	292	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Lead	$R_{\theta JL}$	250	$^\circ\text{C/W}$
Operating junction Temperature	T_J	-40 ~ +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-40 ~ +125	$^\circ\text{C}$

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 100\mu\text{A}$	60	-	-	V
Forward Voltage	V_F	$I_F = 0.2\text{A}$	-	-	0.6	V
Maximum Peak Reverse Current	I_R	$V_R = 60\text{V}$	-	-	100	μA
Typical Junction Capacitance	C_J	$V_R = 4\text{V}, f = 1\text{MHz}$	-	19	-	pF

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

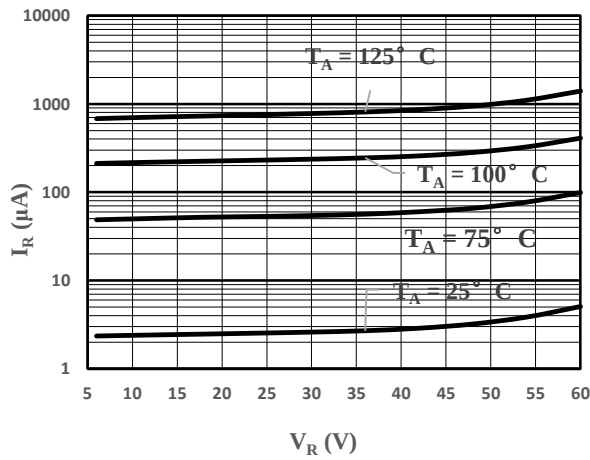


Fig 1 Typical Reverse Characteristic

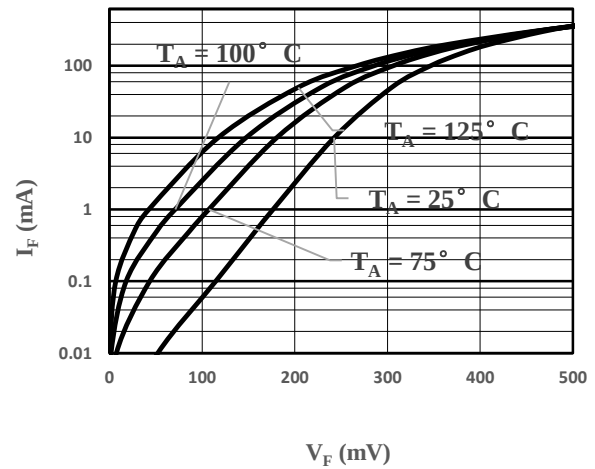


Fig 2 Typical Forward Characteristic

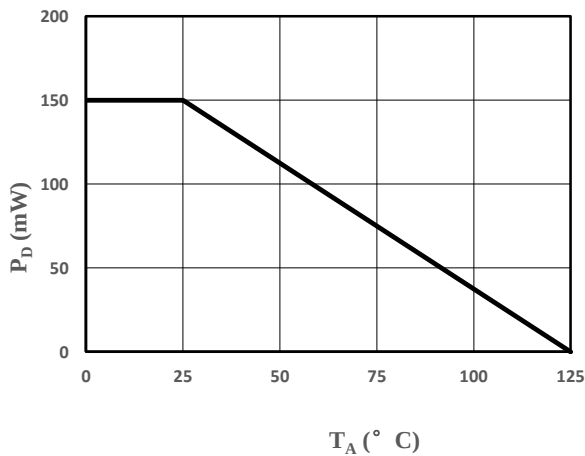


Fig 3 Current Derating Curve

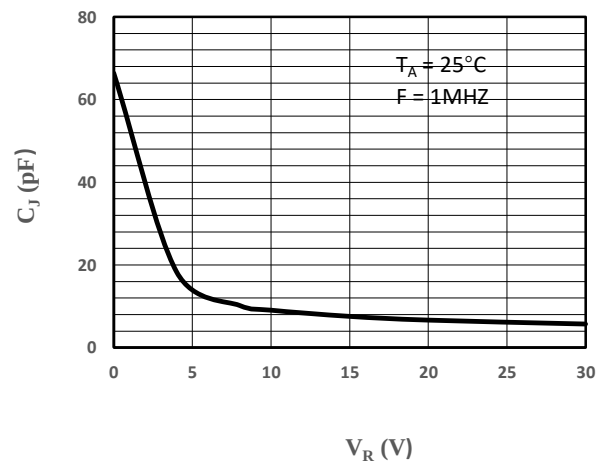
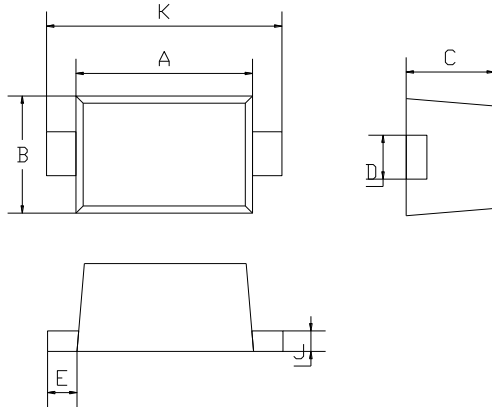


Fig 4 Capacitance vs. Reverse Voltage

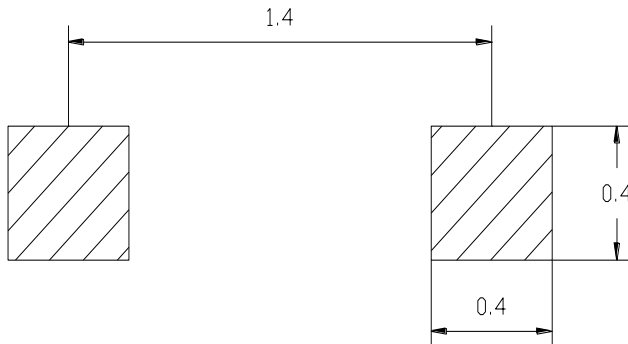
Package Outline Dimensions (Unit: mm)



SOD-523		
Dimension	Min.	Max.
A	1.10	1.30
B	0.70	0.90
C	0.50	0.70
D	0.25	0.35
E	0.15	0.25
J	0.05	0.15
K	1.50	1.70

Mounting Pad Layout (Unit: mm)

SOD-523



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