

Features

- Low forward voltage drop
- Guard ring construction for transient Protection
- High conductance

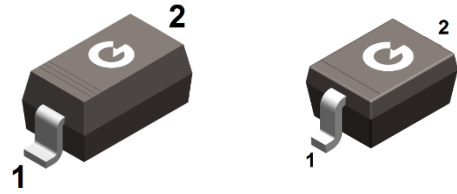
HF

Typical Applications

- Surface mount schottky barrier rectifier

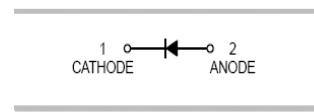
Mechanical Data

- Case: SOD-123, SOD-323
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Tin plated leads, solderable per MIL-STD-202, Method 208



SOD-123

SOD323



Ordering Information

Part Number	Package	Shipping	Marking Code
B0540WH	SOD-123	3000 pcs / Tape & Reel	SFH
B0540WSH	SOD-323	3000 pcs / Tape & Reel	SFH

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

Parameter	Symbol	B0540W(S)H	Units
Peak Repetitive Reverse Voltage	V _{RRM}	40	V
RMS Reverse Voltage	V _{RMS}	28	V
Average Rectified Output Current	I _O	0.5	A
Peak Forward Surge Current, 8.3ms Single Half-sine-wave	I _{FSM}	10	A

Thermal Characteristics

Parameter	Symbol	B0540WH	B0540WSH	Units
Power Dissipation	P _D	500	250	mW
Thermal Resistance (Junction-to-Ambient) *	R _{θJA} *	250	500	°C /W
Thermal Resistance (Junction-to-Lead) *	R _{θJL} *	162	323	°C /W
Thermal Resistance (Junction-to-Case) *	R _{θJC} *	138	276	°C /W
Operating Junction Temperature Range	T _J	-55 to +150		°C
Storage Temperature Range	T _{STG}	-55 to +150		°C

* Part mounted on FR-4 board with recommended pad layout

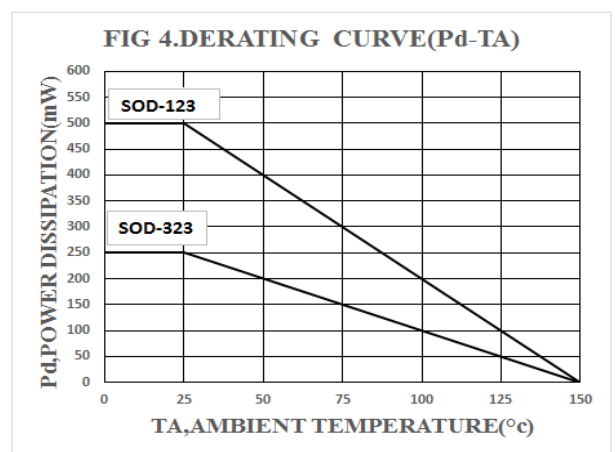
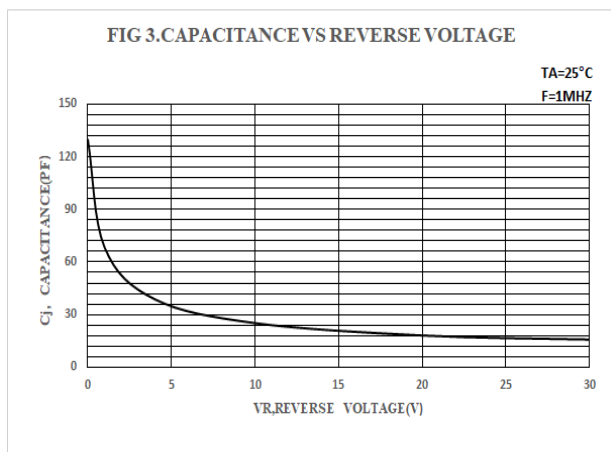
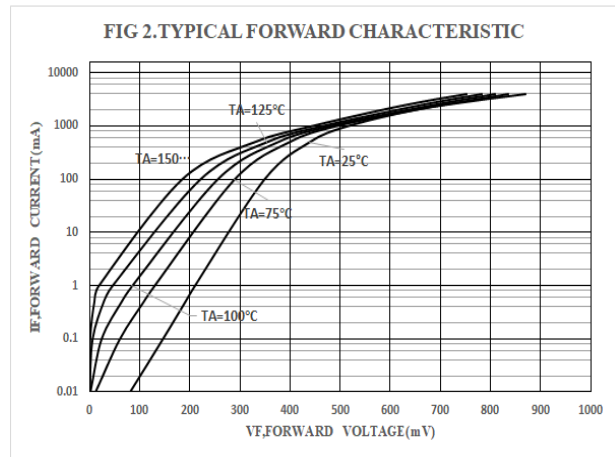
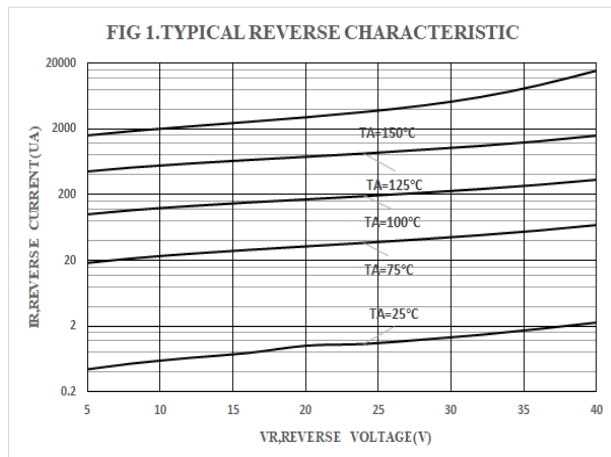
Electrical Characteristics (@ $T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Forward Voltage	V_F^*	$I_F=0.5\text{A}$ $I_F=1\text{A}$	-	-	0.51 0.62	V
Maximum Peak Reverse Current	I_R^{**}	$V_R=20\text{V}$ $V_R=40\text{V}$	-	-	10 20	μA
Capacitance Between Terminals	C_T	$V_R=0\text{V}, f=1\text{MHz}$	-	-	170	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1I_R, R_L=100\Omega$	-	-	4	ns

*Pulse width $\leq 380\text{ }\mu\text{s}$, Duty cycle < 2%

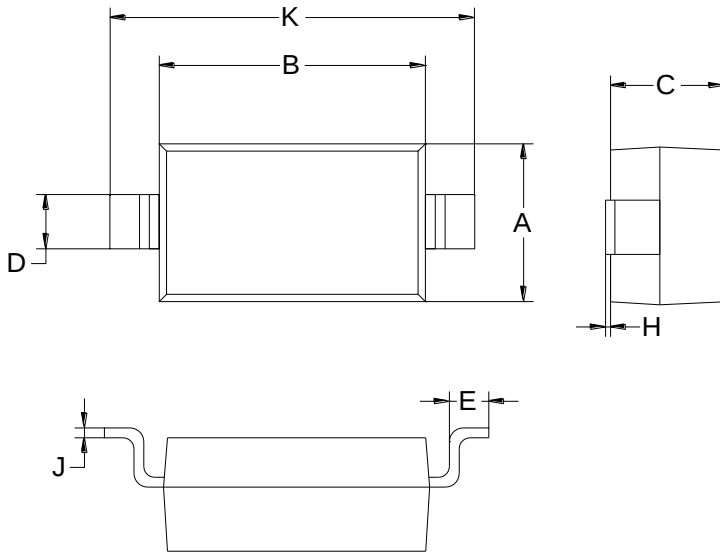
**pulse test , $t_p \leq 5\text{ms}$

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



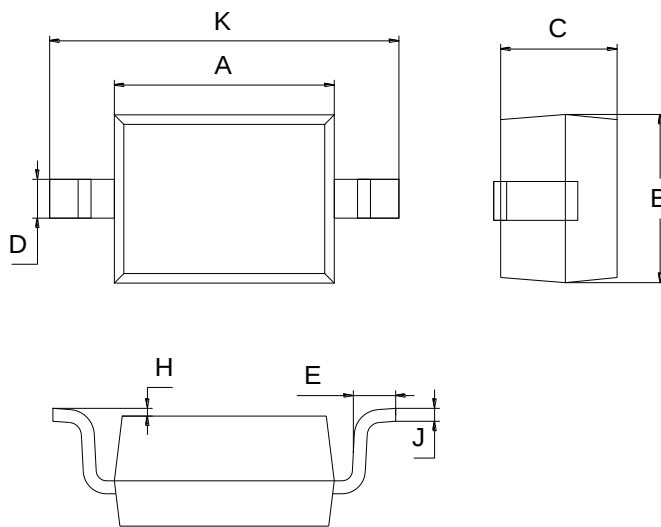
Package Outline Dimensions (unit: mm)

SOD-123



SOD-123		
Dim	Min	Max
A	1.45	1.75
B	2.55	2.85
C	1.00	1.30
D	0.50	0.60
E	0.25	0.45
H	0.02	0.10
J	0.05	0.15
K	3.55	3.85

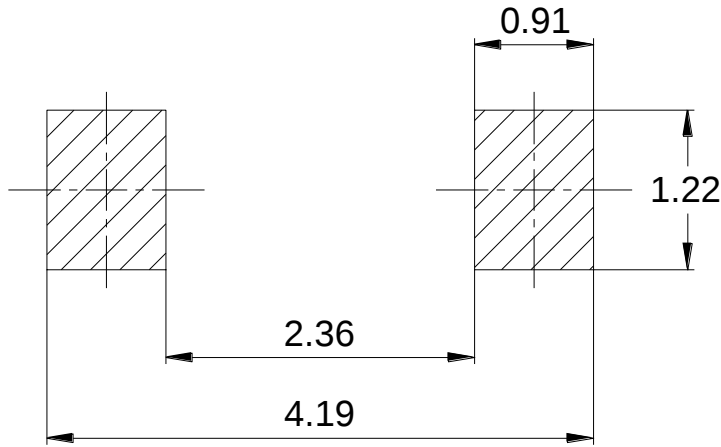
SOD-323



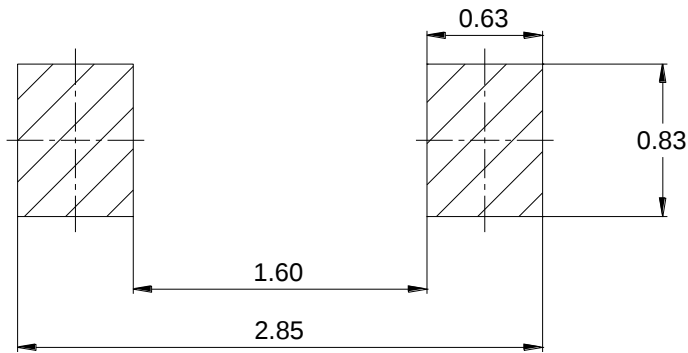
SOD-323		
Dim	Min	Max
A	1.60	1.80
B	1.20	1.40
C	0.80	0.90
D	0.25	0.35
E	0.22	0.42
H	0.02	0.10
J	0.05	0.15
K	2.55	2.75

Mounting Pad Layout (unit: mm)

SOD-123



SOD-323



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