

Features

- Very low conduction losses.
- Negligible switching losses.
- Low forward and reverse recovery times.
- Extremely fast switching.
- Surface mount device.
- Low capacitance diode.

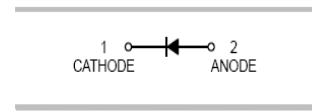
HF

Typical Applications

- Schottky barrier switching.

Mechanical Data

- Case: SOD-323 , SOD-523
- Terminals: Tin plated leads, solderable per MIL-STD-202, Method 208.



Ordering Information

Part Number	Package	Shipping	Marking Code
BAT30	SOD-323	3000 pcs / Tape Reel	30
BAT30K	SOD-523	3000 pcs / Tape Reel	30

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

Parameter	Symbol	Value	Units
Working Peak Reverse Voltage	V _{RRM}	30	V
Continuous forward current	I _F	300	mA
Non-Repetitive Peak Forward Surge Current @t=10 ms	I _{FSM}	1.0	A

Thermal Characteristics

Parameter	Symbol	Limits	Units
Power Dissipation	P _D	150	mW
Typical Thermal Resistance per leg	R _{θJA} *	667	°C/W
Operating Junction Temperature Range	T _J	-40 to +125	°C
Storage Temperature Range	T _{STG}	-40 to +150	°C

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

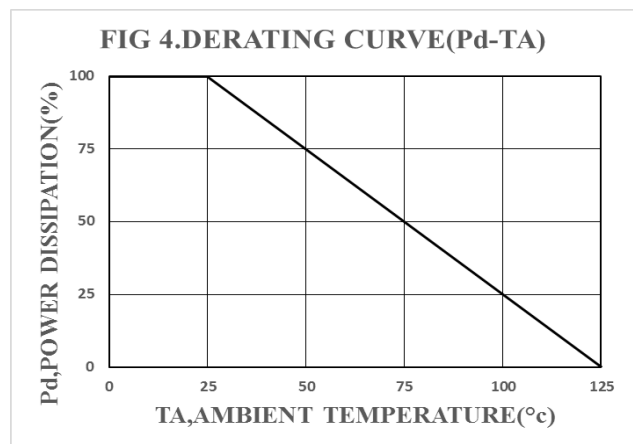
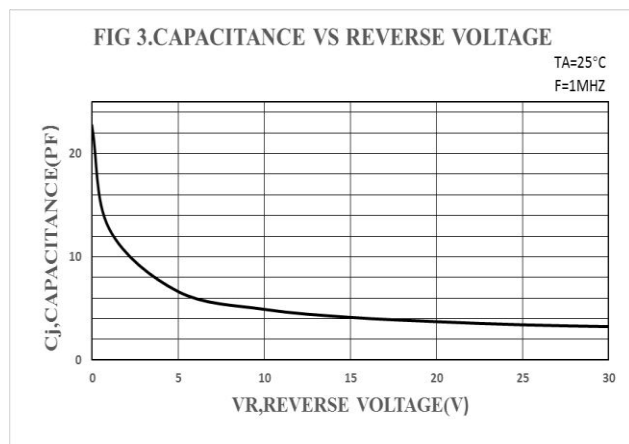
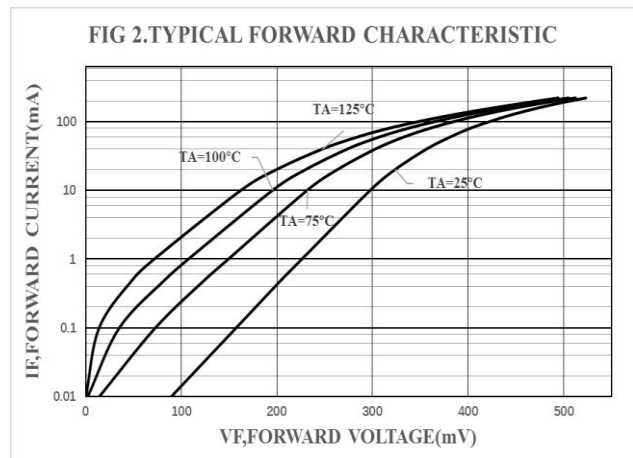
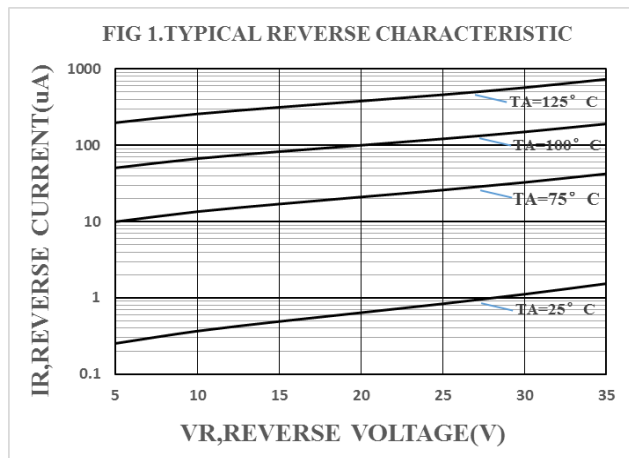
Electrical Characteristics (@ $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Forward Voltage	V_F^*	$I_F=0.1\text{mA}$	-	-	0.24	V
		$I_F=1\text{mA}$	-	-	0.30	
		$I_F=10\text{mA}$	-	-	0.375	
		$I_F=30\text{mA}$	-	-	0.43	
		$I_F=100\text{mA}$	-	-	0.50	
		$I_F=200\text{mA}$	-	-	0.58	
Reverse Current	I_R^{**}	$V_R=5\text{V}$	-	-	0.5	uA
		$V_R=10\text{V}$	-	-	1	
		$V_R=25\text{V}$	-	-	3	
		$V_R=30\text{V}$	-	-	5	
Capacitance between terminals	C_T	$V_R=0\text{V}, f=1\text{MHz}$	-	22	25	pF

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

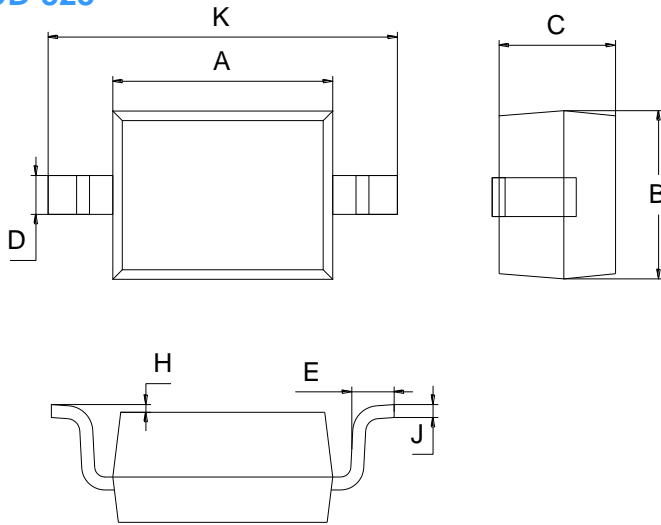
**pulse test, $t_p \leq 5\text{ms}$

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



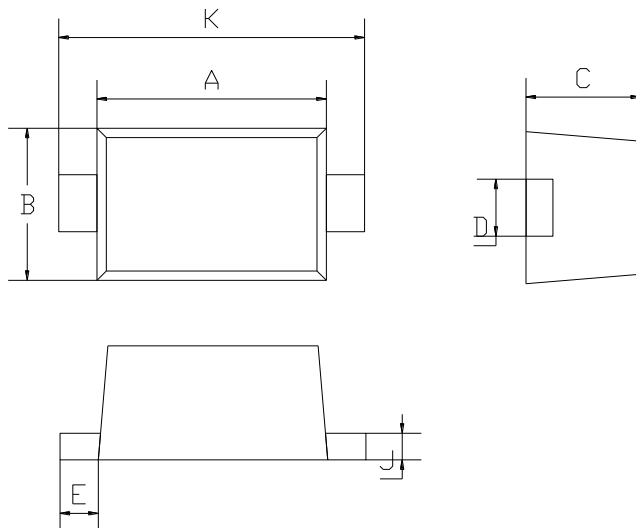
Package Outline Dimensions(unit:mm)

SOD-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

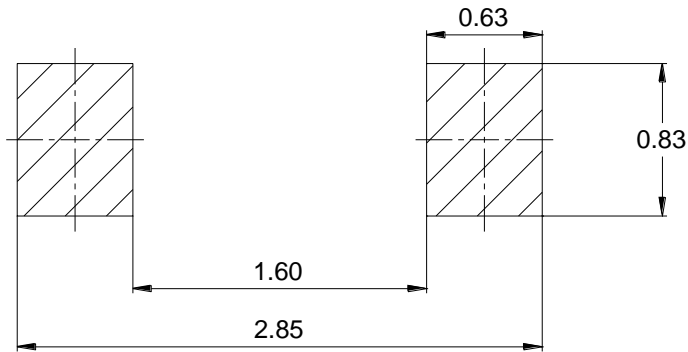
SOD-523



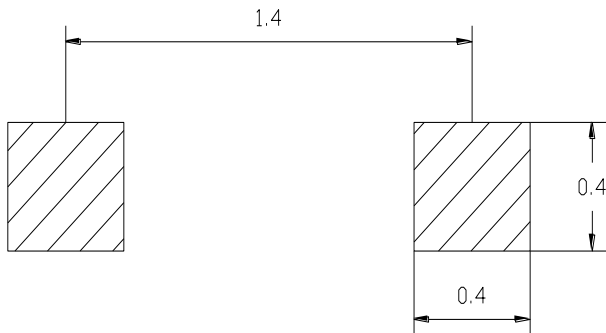
SOD-523		
Dim	Min	Max
A	1.10	1.30
B	0.70	0.90
C	0.50	0.70
D	0.25	0.35
E	0.15	0.25
J	0.05	0.15
K	1.50	1.70

Mounting Pad Layout(unit:mm)

SOD-323



SOD-523



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