Small Signal Schottky Barrier Diode

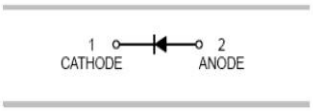
1SS357

Features

- Low reverse current and low forward voltage.
- High reliability.
- Small surface mounting type.

Lead-free

HF



SOD-323

Typical Applications

- Low current rectification.

Mechanical Data

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

Ordering Information

Part Number	Package	Shipping	Marking Code
1SS357□	SOD-323	3000/Tape Reel	S31

□: none is for Lead Free package;
"G" is for Halogen Free package.

Maximum Ratings (@T_A=25℃ unless otherwise specified)

Parameter	Symbol	Value	Units
Peak Reverse Voltage	V_{RM}	45	V
DC Reverse Voltage	V_R	40	V
Average Forward Current	I_O	100	mA
Surge Current(10ms)	I_{FSM}	1	A

Thermal Characteristics

Parameter	Symbol	Value	Units
Power Dissipation	P_D	200	mW
Typical Thermal Resistance per leg	$R_{\Theta JA}$*	500	°C /W
Operating Junction Temperature Range	T_J	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℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Forward Voltage	V_F*	I_F=1mA	-	0.28	0.32	V
		I_F=10mA	-	0.36	0.38	
		I_F=100mA	-	0.54	0.60	
Reverse Current	I_R**	V_R=40V	-	-	5	uA
Capacitance Between Terminals	C_T	V_R=0V,f=1MHz	-	18	25	pF

*Pulse width ≤380 uS, Duty cycle < 2%

**pulse test ， tp≤5ms

Ratings and Characteristic Curves (T_A=25℃ unless otherwise noted)

FIG 1.TYPICAL REVERSE CHARACTERISTIC

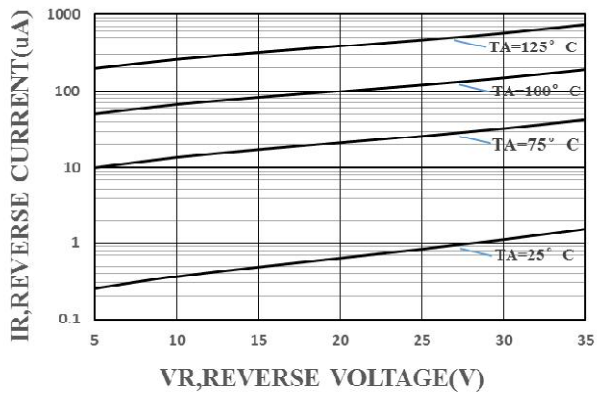


FIG 2.TYPICAL FORWARD CHARACTERISTIC

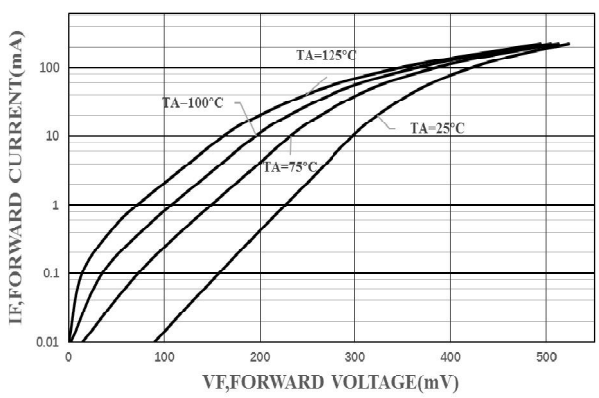


FIG 3.CAPACITANCE VS REVERSE VOLTAGE

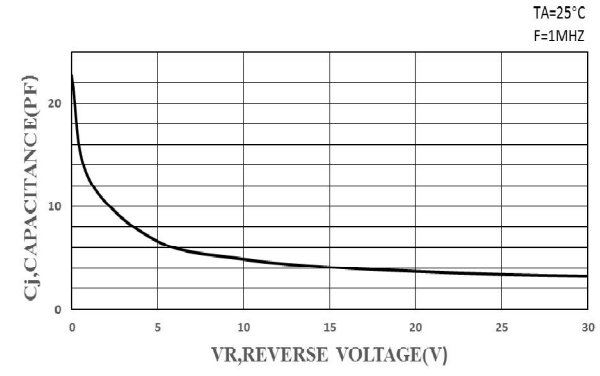
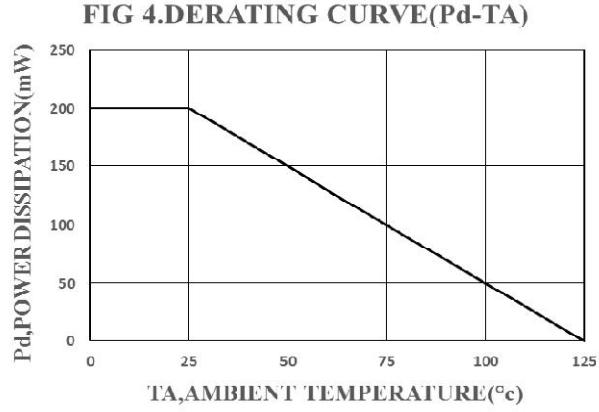
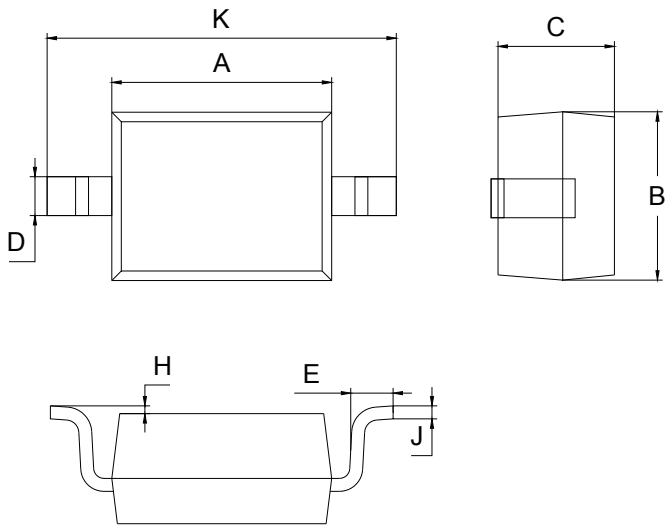


FIG 4.DERATING CURVE(Pd-TA)



Package Outline Dimensions(unit:mm)

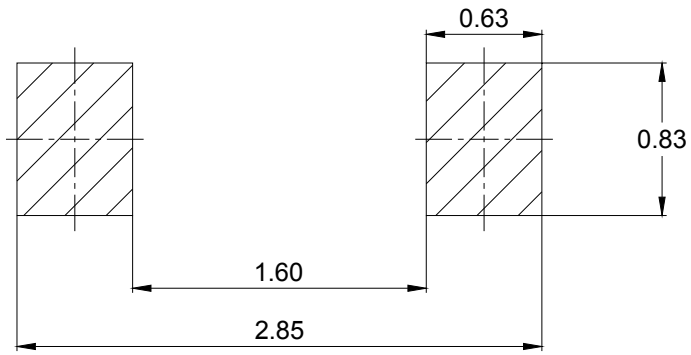
SOD-323



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

Mounting Pad Layout(unit:mm)

SOD-323



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