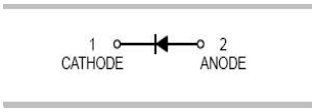
Features



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

Typical Applications

- For general purpose applications

SOD-123

Mechanical Data

- Case: SOD-123
- 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
SD103AW	SOD-123	3000/Tape Reel	S4
SD103BW	SOD-123	3000/Tape Reel	S5
SD103CW	SOD-123	3000/Tape Reel	S6

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

Characteristic	Symbol	SD103AW	SD103BW	SD103CW	Units
Peak repetitive reverse voltage	V_{RRM}	40	30	20	V
RMS Reverse voltage	V_{RMS}	28	21	14	V
Maximum average forward output current	$I_{F(AV)}$	350			mA
Peak forward surge current,8.3ms single half-sine-wave	I_{FSM}	2			A

Thermal Characteristics

Characteristic	Symbol	Value	Units
Power dissipation	P_D	400	mW
Thermal Resistance Junction-to-Air	$R_{\Theta JA}$*	250	°C/W
Thermal Resistance Junction-to-Case	$R_{\Theta JC}$*	138	°C/W
Operating junction temperature range	T_J	125	°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℃ unless otherwise specified)

Characteristic	Symbol	Test conditions	Min.	Typ.	Max.	Units
Forward Voltage	V_F*	I_F=20mA	-	-	0.37	V
		I_F=200mA	-	-	0.60	
Maximum Peak Reverse Current	I_R**	V_R= 30V (SD103AW) V_R= 20V (SD103BW) V_R= 10V (SD103CW)	-	-	5	uA
Capacitance between terminals	C_T	V_R=0V,f=1MHz	-	22	50	pF
Reverse Recovery Time	t_{rr}	I_F=I_R=200mA, I_{rr}=0.1×I_R,R_L=100Ω	-	10	-	ns
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

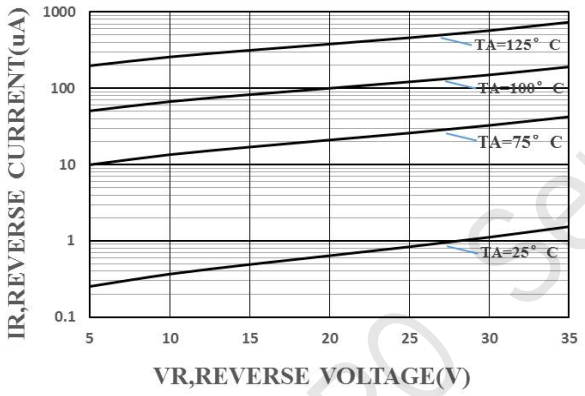


FIG 2.TYPICAL FORWARD CHARACTERISTIC

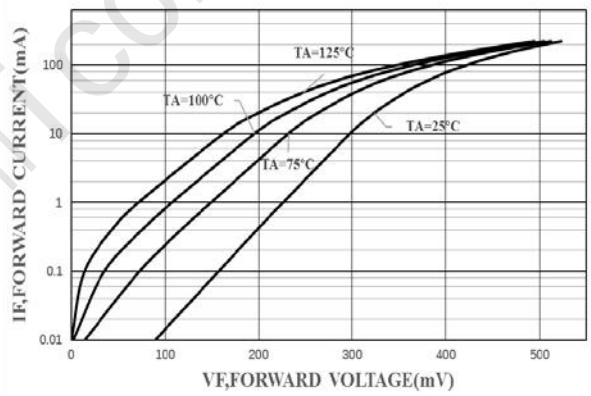


FIG 3.CAPACITANCE VS REVERSE VOLTAGE

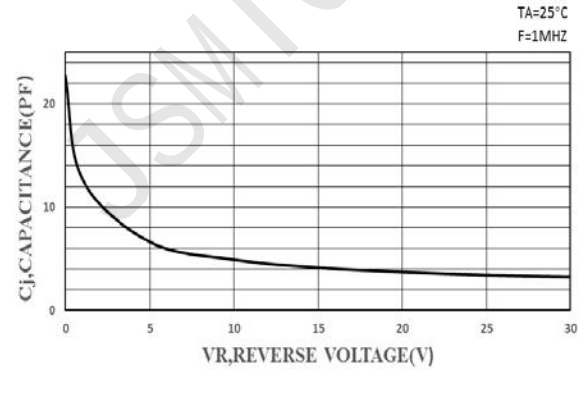
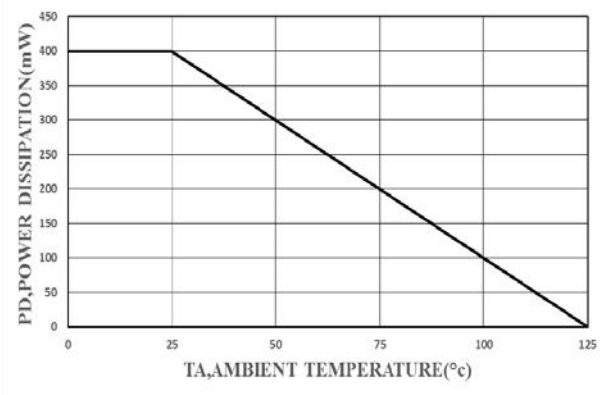
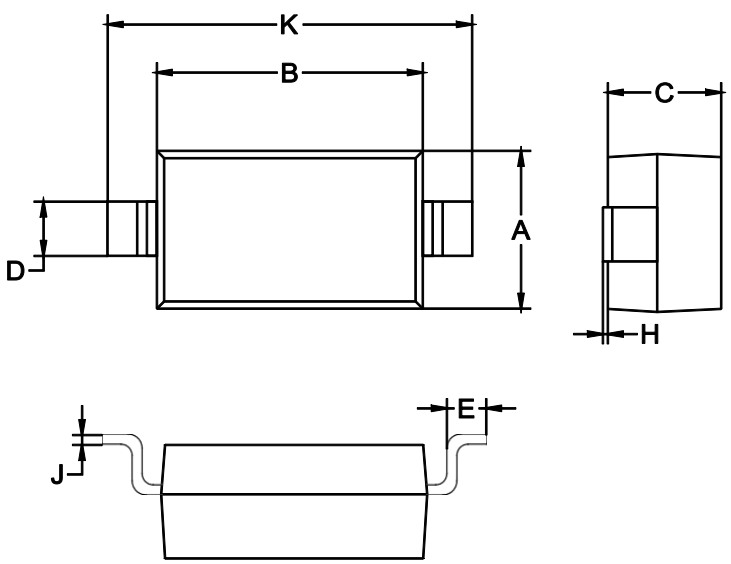


FIG 4.DERATING CURVE(Pd-TA)



Package Outline Dimensions(unit:mm)

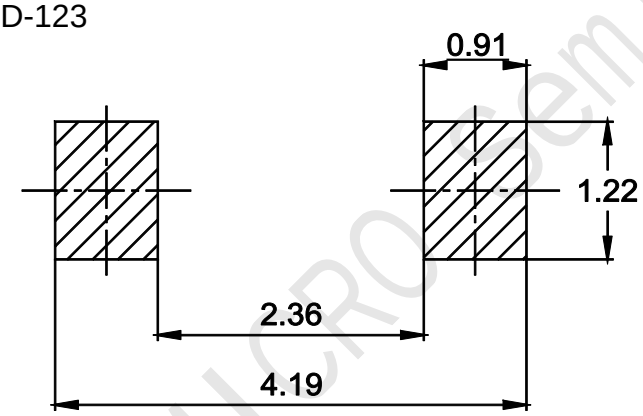
SOD-123



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

Mounting Pad Layout(unit:mm)

SOD-123



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