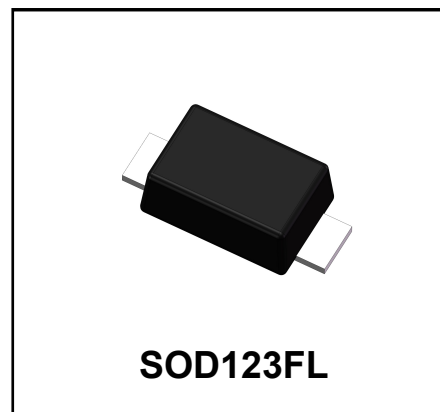


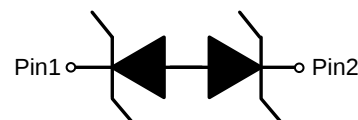
Desicription

- ◆ This low-power TVS (Transient Voltage Suppressor) is mainly used for signal and power supply to protect the back-stage circuit from ESD(Electrostatic Discharge) and EFT(Electrical Fast Transients) and improve the reliability of the product, because its extremely small package is suitable for various portable devices and mobile electronic devices.



Features

- ◆ IEC61000-4-2(ESD): $\pm 30\text{KV}$ Max Air
 $\pm 30\text{KV}$ Max Contact
- ◆ IEC61000-4-4(EFT): $40\text{A}(5/50\text{ns})$
- ◆ IEC61000-4-5(Surge): $1.55\text{A}(10/1000\mu\text{s})$
- ◆ Very low reverse current: $I_R < 1.0\mu\text{A}$ (typical)
- ◆ Halogen free ,Lead free and RoHs
- ◆ AEC-Q101



Circuit diagram

Application

- ◆ Cellular phones
- ◆ Portable devices
- ◆ Digital cameras
- ◆ Player
- ◆ Smart home
- ◆ Robot

Order information

Model	Marking	Package	shipping
ESD80F201TBC		SOD123FL	3000/Tape&Reel

Electrical characteristic(T=25°C, unless otherwise specified)

Parameter	Symbol	Conditions	Min.	TYP.	Max.	Units
Reverse stand-off voltage	V_{RWM}				± 80.0	V
Reverse leakage current	I_R	$V_{RWM} = 80.0V$			1.0	μA
Reveres breakdown voltage	V_{BR}	$I_T = 1mA$	88.5		97.5	V
Clamping voltage	V_C	$I_{pp} = 1.55A(10/1000\mu s)$			129.0	V
Junction capacitance	C_J	$V_R = 0V$ $f = 1MHz$		200.0		pF

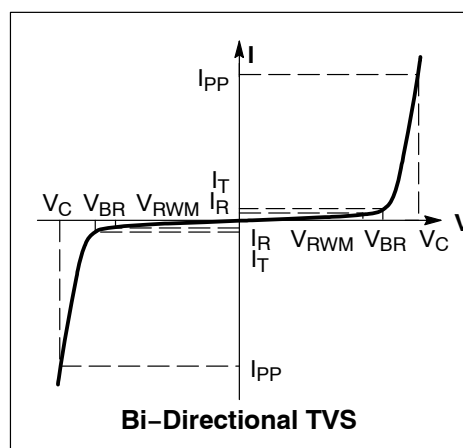
Electrical characteristic(T=25°C, unless otherwise specified)
Electrical performance curve

V_C : Maximum clamping voltage

V_{br} : Reverse breakdown voltage

V_{RWM} : Working voltage

I_{pp} : Maximum peak current



Maximum Rating

Rating	symbol	value	Units
Peak Pulse Current($t_p=8/20\mu s$)	I_{pp}	1.55	A
ESD per IEC61000-4-2(Contact)	V_{ESD}	± 30	KV
ESD per IEC61000-4-2(Air)		± 30	
Operating Temperature	T_J	-55~125	$^{\circ}C$
Storage Temperature	T_{STG}	-55~150	$^{\circ}C$

Typical characteristic

FIG1:Peak Pulse Power Rating Curve

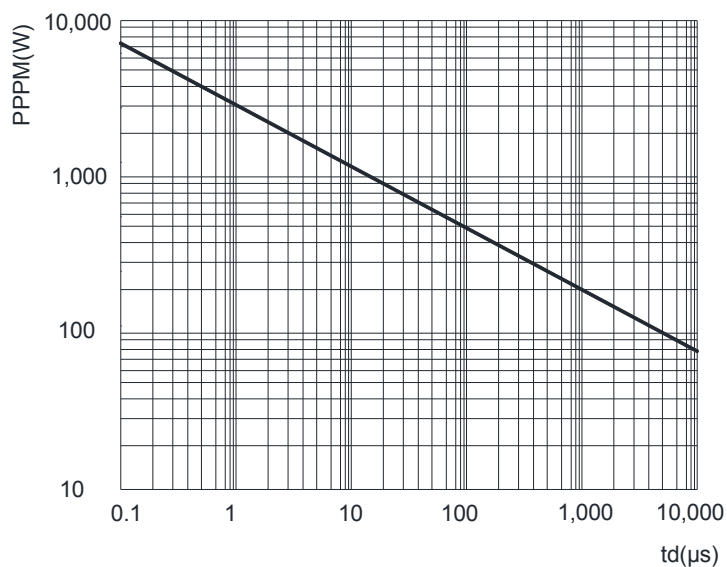
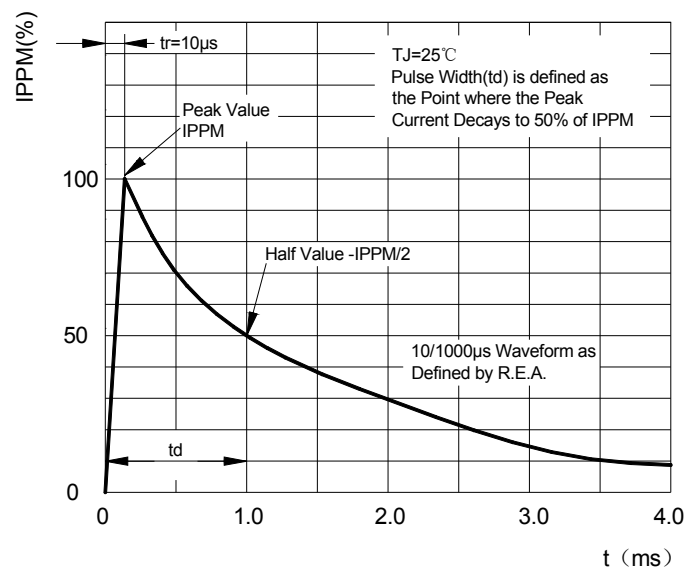
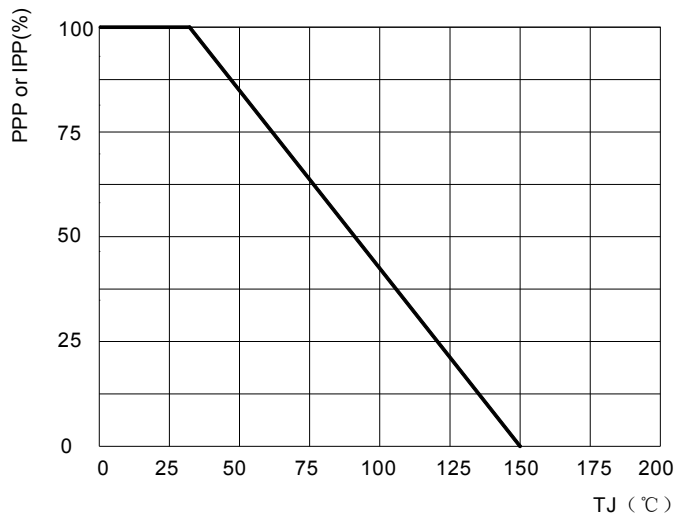
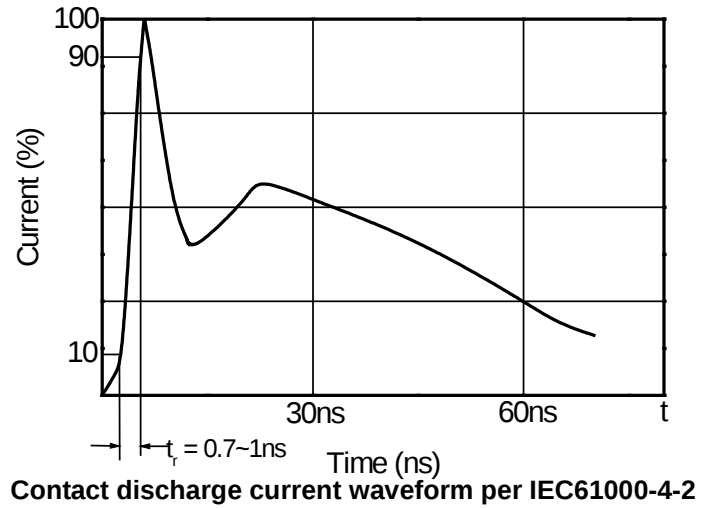
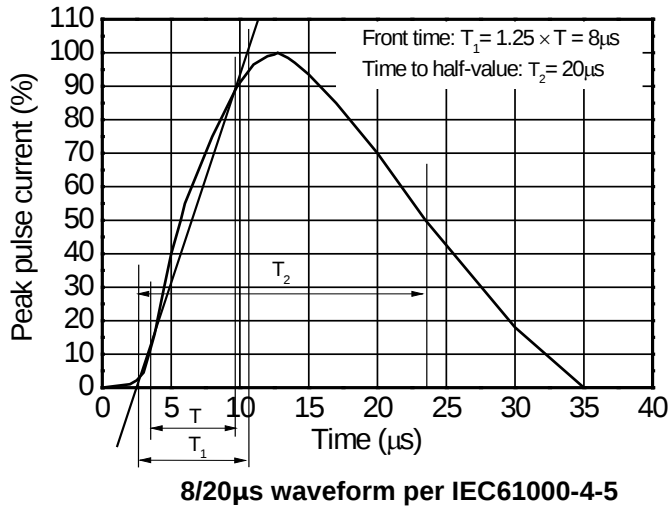
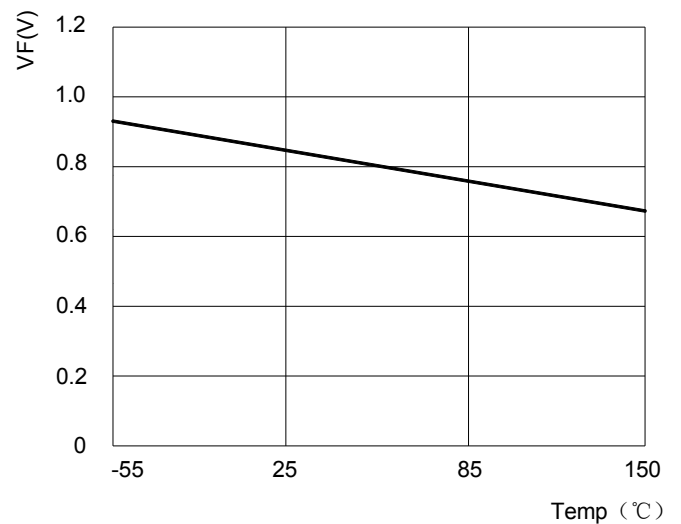


FIG2: Pulse Waveform



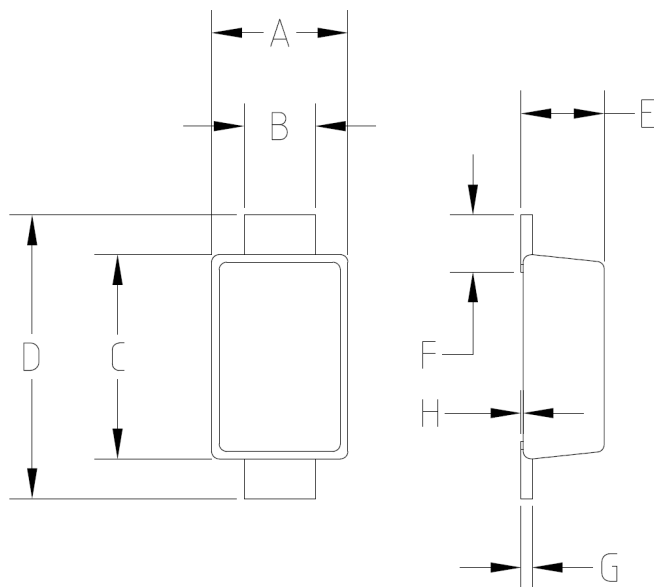


Pulse Power or Current vs. Initial Junction Temperature

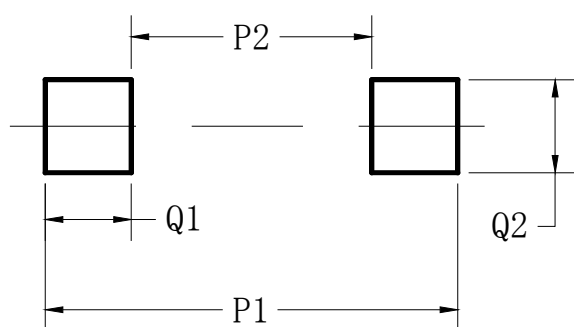


Forward Voltage Curve

Dimension outline Unit:mm

SOD-123FL


SOD-123FL		
Dim	Min	Max
A	1.60	1.90
B	0.85	1.05
C	2.55	2.85
D	3.60	3.90
E	1.00	1.20
F	0.40	0.90
G	0.10	0.25
H	0.02	0.05

Recommended Mounting Pad Layout Unit:mm


SOD-123FL	
Dim	Millimeters
P1	3.90
P2	1.90
Q1	1.00
Q2	1.50