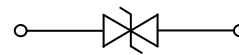


Features

- 400 Watts peak pulse power ($t_p=8/20\ \mu\text{S}$)
- Bidirectional configuration
- Fast response time, typically $< 1\ \text{ns}$
- Excellent clamping voltage
- Low leakage current
- IEC 61000-4-2 $\pm 30\text{kV}$ (Air) ESD protection
- IEC 61000-4-2 $\pm 30\text{kV}$ (Contact) ESD protection
- IEC 61000-4-5 20A (8/20us) Surge protection
- IEC 61000-4-4 40A (5/50ns) EFT protection



SOD-523



Schematic Diagram

Applications

- Cellular Phones
- Portable Devices
- Digital Cameras
- Power Supplies



Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p=8/20\ \mu\text{S}$)	P_{PP}	400	W
Peak Pulse Current ($t_p=8/20\ \mu\text{S}$)	I_{PP}	20	A
Operating Temperature	T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 to +150	$^\circ\text{C}$

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

Parameterer	Symbol	Condition	Min	Typ	Max	Unit
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	5	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	6	-	9	V
Reverse Leakage Current	I_R	$V_R=5\text{V}$	-	-	1	μA
Clamping Voltage	V_C	$I_{PP}=20\text{A}, T_P=8/20\ \mu\text{S}$	-	-	20	V
Junction Capacitance	C_J	$V_R=0, f=1\text{MHz}$	-	35	40	pF

Typical Characteristic Curves

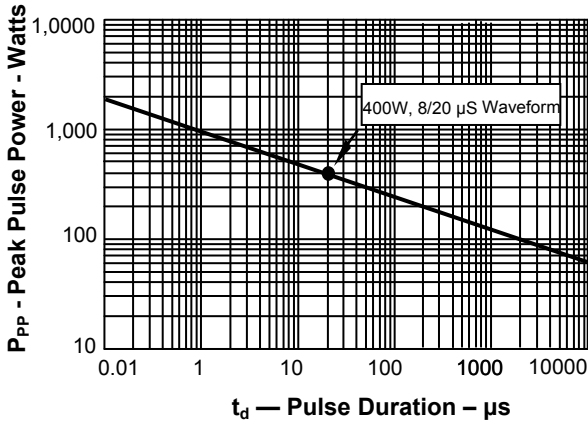


Figure 1. Peak Pulse Power vs Pulse Time

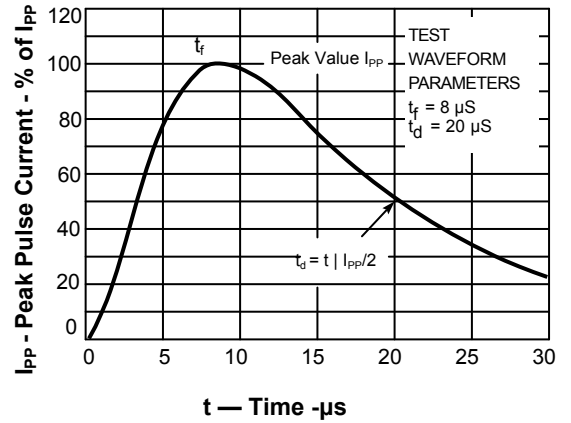


Figure 2. Pulse WaveForm-8/20μs

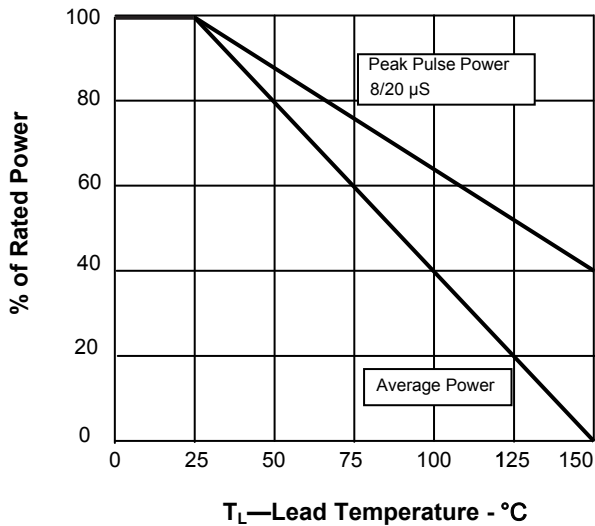


Figure 3. Pulse Derating Curve

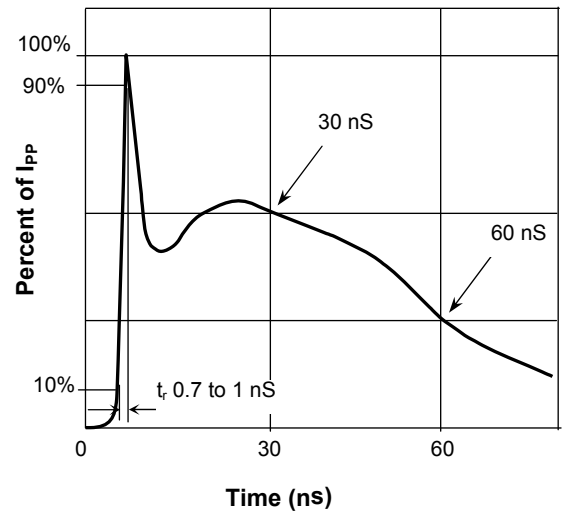
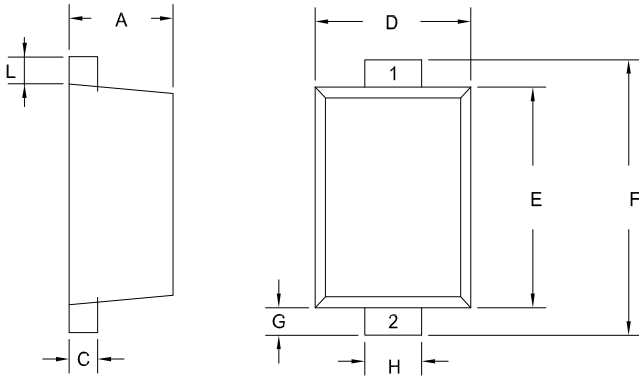


Figure 4. Pulse WaveForm-ESD (IEC61000-4-2)

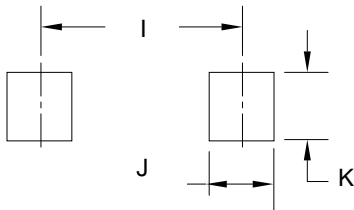
Package Outline Dimensions

SOD-523



Dim	Millimeters	
	Min	Max
A	0.50	0.70
C	0.07	0.20
D	0.70	0.90
E	1.10	1.30
F	1.50	1.70
G	0.15	0.25
H	0.25	0.35
L	0.15	0.25

Recommended Pad Dimensions



Dim	Millimeters
I	1.35
J	0.35
K	0.39

Order Information

Device	Package	Marking	Carrier	Quantity	HSF Status	Net Weight
GSES5VD523H-2B	SOD-523	C5	Tape & Reel	5000pcs/Reel	RoHS compliant	0.0014g