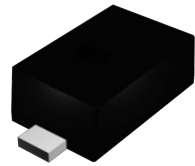


Features

- 400 Watts peak pulse power ($t_p = 8/20 \mu S$)
- 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 ($t_p = 8/20 \mu S$)	P_{PP}	400	W
Peak Pulse Current ($t_p = 8/20 \mu S$)	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.)

Parameter	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	$\mu \text{ A}$
Clamping Voltage	V_C	$I_{PP} = 20 \text{ A}, T_P = 8/20 \mu S$	-	-	20	V
Junction Capacitance	C_J	$V_R = 0, f = 1 \text{ MHz}$	-	35	40	pF

Typical Characteristic Curves

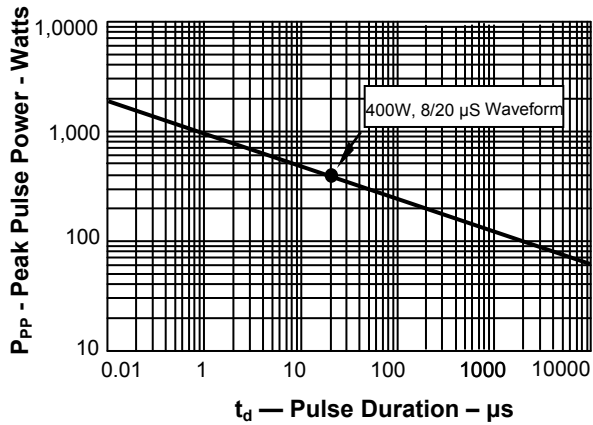


Figure 1. Peak Pulse Power vs Pulse Time

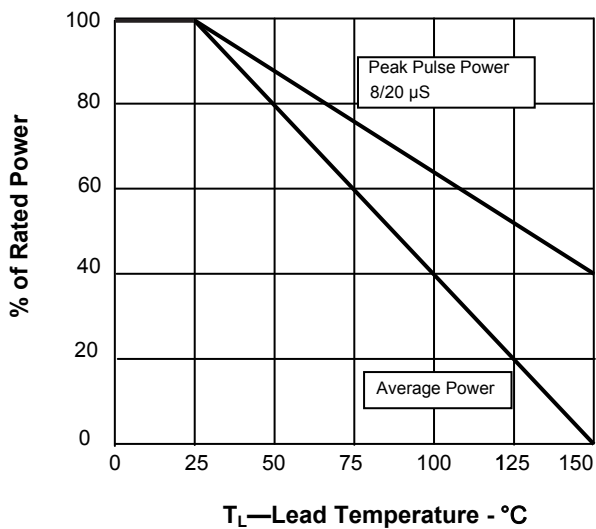


Figure 3. Pulse Derating Curve

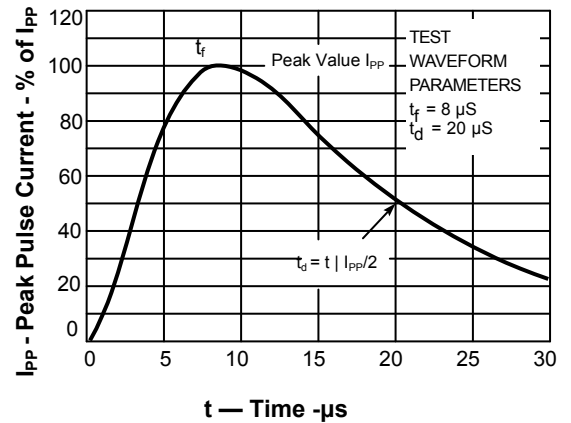


Figure 2. Pulse WaveForm-8/20 μ s

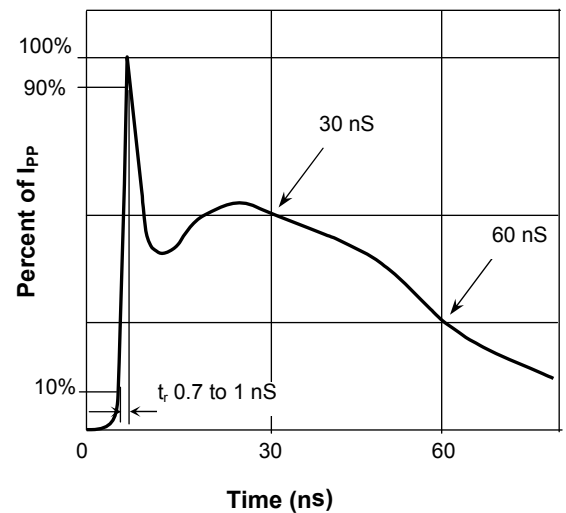
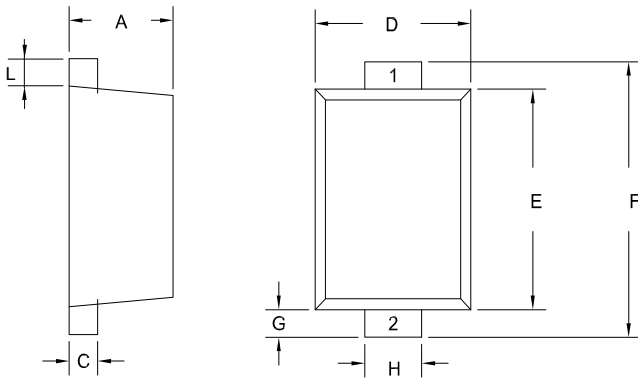


Figure 4. Pulse WaveForm-ESD (IEC61000-4-2)

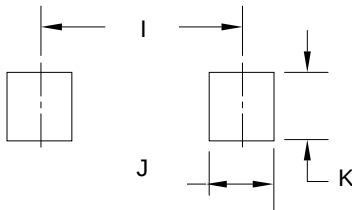
Package Outline Dimensions

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