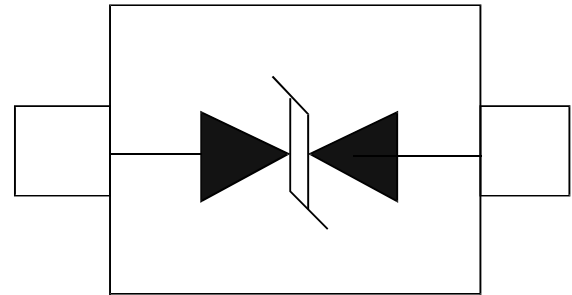


Features

- 60Watts peak pulse power ($t_p = 8/20\mu s$)
- Bidirectional configurations
- Low clamping voltage
- Low leakage current
- Low capacitance ($C_j=0.5pF$ typ.)
- Protection one data/power line
- IEC 61000-4-2 $\pm 15kV$ contact $\pm 20kV$ air
- IEC 61000-4-4 (EFT) 40A(5/50ns)
- IEC 61000-4-5 (Lightning) 3A(8/20 μs)



SOD-523

Applications

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation

Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu s$)	P_{PP}	60	Watts
Peak Pulse Current ($t_p=8/20\mu s$)(note1)	I_{pp}	3	A
ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2(Contact)	V_{ESD}	20 15	kV
Lead Soldering Temperature	T_L	260(10seconds)	$^{\circ}C$
Junction Temperature	T_J	-55 to + 125	$^{\circ}C$
Storage Temperature	T_{stg}	-55 to + 125	$^{\circ}C$

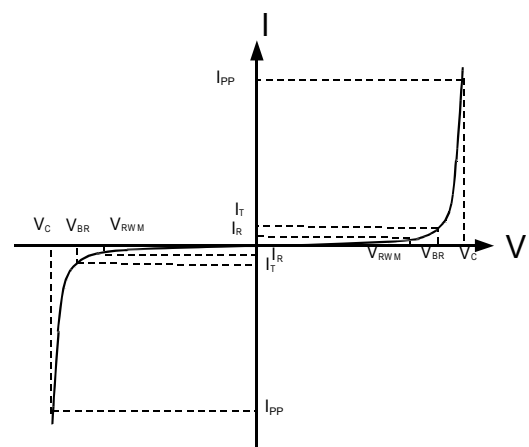
Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				5.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	6.0	8.5		V
Reverse Leakage Current	I_R	$V_{RWM}=5V, T=25^{\circ}C$		0.1	0.5	μA
Peak Pulse Current	I_{PP}	$t_p=8/20\mu s$			3	A
Clamping Voltage	V_C	$I_{PF}=3A, t_p=8/20\mu s$			20	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		0.5	0.9	pF

Electrical Parameters (TA = 25°C unless otherwise noted)

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @
V_{RWM}	V_{BR} Breakdown Voltage @ I_T
I_T	Test Current

Note: 8/20 μs pulse waveform.



Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

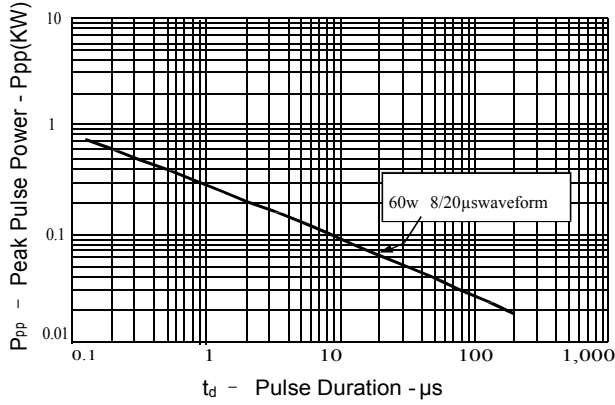


Figure 2: Power Derating Curve

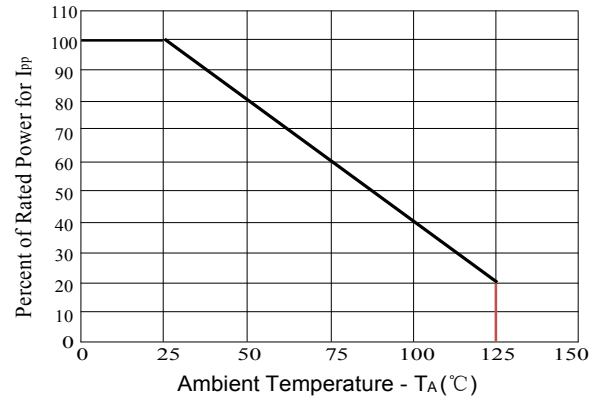


Figure3: Pulse Waveform

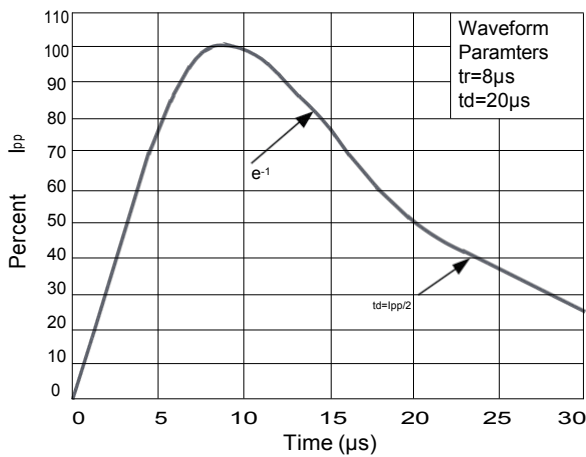
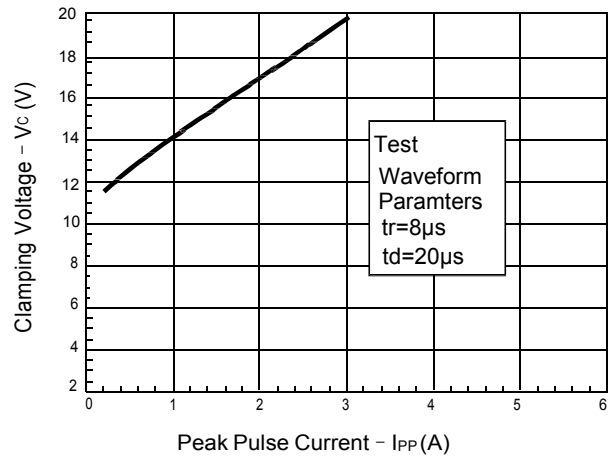
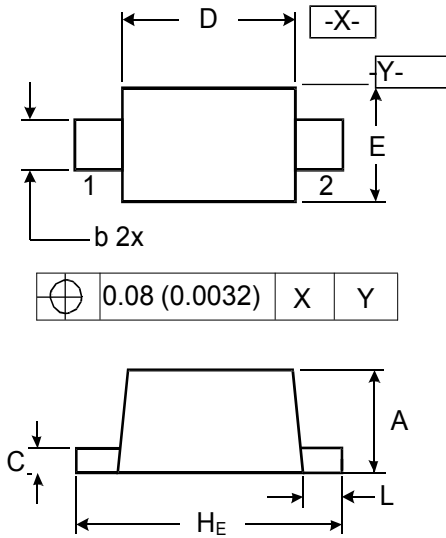


Figure 4: Clamping Voltage vs. Ipp



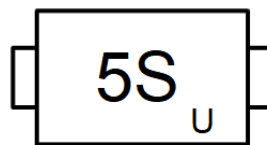
Outline Drawing – SOD-523



DIMENSIONS

SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.50	0.70	0.020	0.028
b	0.25	0.35	0.010	0.014
C	0.07	0.20	0.0028	0.0079
D	1.10	1.30	0.043	0.051
E	0.70	0.90	0.028	0.035
H _E	1.50	1.70	0.059	0.067
L	0.15	0.25	0.006	0.010

Marking



Ordering information

Order code	Package	Base qty	Delivery mode
UMW BSD5C051U	SOD-523	3000	Tape and reel