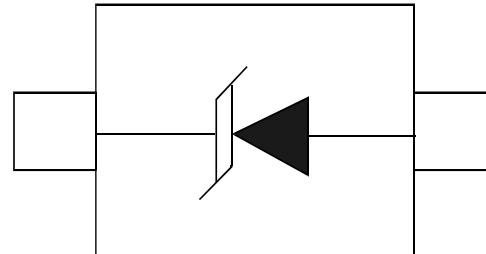


### Features

- 250Watts peak pulse power (tp =8/20μs) Unidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- IEC 61000-4-2 ±30kV contact ±30kVair
- IEC 61000-4-4 (EFT) 40A(5/50ns)
- IEC 61000-4-5 (Lightning) 15A(8/20μs)



SOD-523

### Applications

- Microprocessor based equipment
- Personal Digital Assistants
- (PDA's) Notebooks, Desktops, and
- Servers Portable Instrumentation
- Pagers Peripherals

### Mechanical Data

- SOD-523 package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

**Absolute Maximum Rating**

Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p = 8/20\mu s$ )	$P_{PP}$	250	Watts
Peak Pulse Current ( $t_p = 8/20\mu s$ )(note1)	$I_{pp}$	15	A
ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2(Contact)	$V_{ESD}$	30 30	kV
Lead Soldering Temperature	$T_L$	260(10seconds)	°C
Junction Temperature	$T_J$	-55 to + 150	°C
Storage Temperature	$T_{stg}$	-55 to + 150	°C

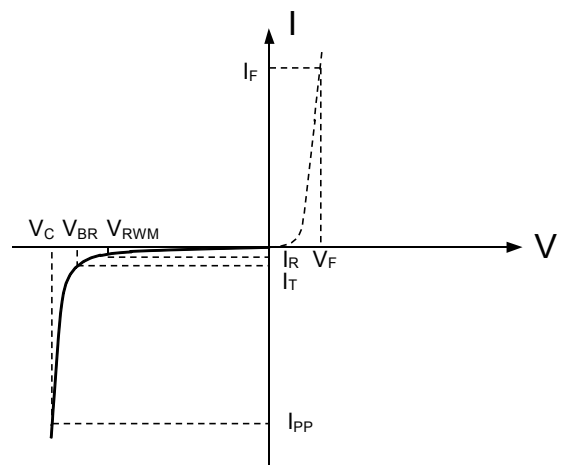
**Electrical Characteristics**

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			V
Reverse Leakage Current	$I_R$	$V_{RWM} = 5.0V, T = 25^\circ C$			0.5	$\mu A$
Clamping Voltage	$V_C$	$I_{PP} = 15A, t_p = 8/20\mu s$		12	18	V
Junction Capacitance	$C_j$	$V_R = 0V, f = 1MHz$		80		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 $\mu s$  pulse waveform.



Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

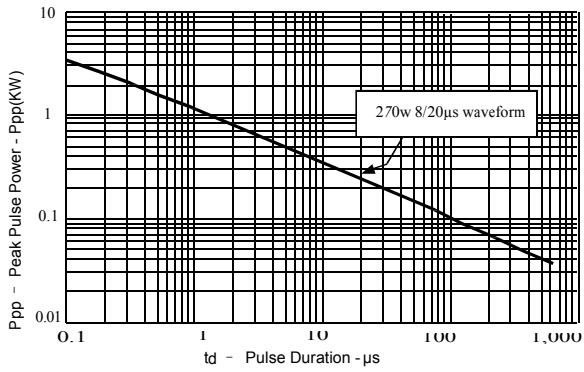


Figure 2: Power Derating Curve

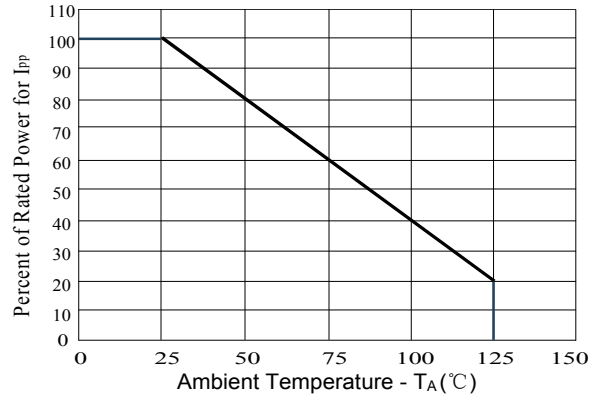


Figure 3: Pulse Waveform

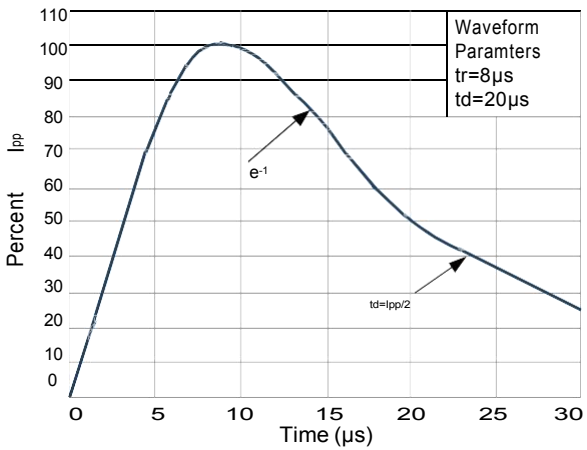
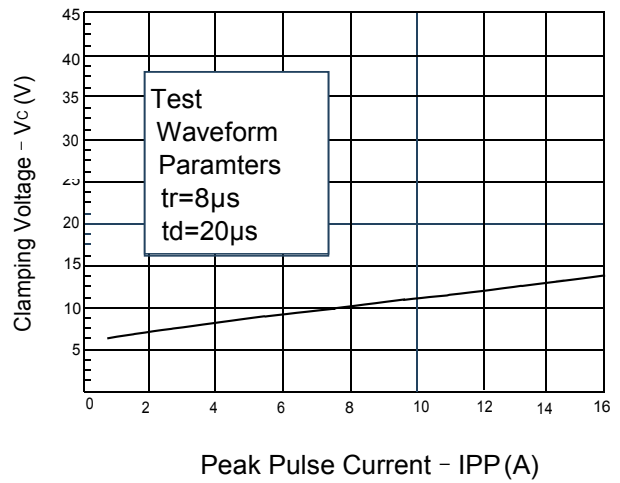


Figure 4: Clamping Voltage vs. Ipp



**Marking**

**Ordering information**

Order code	Package	Base qty	Delivery mode
UMW UCLAMP0501H	SOD-523	3000	Tape and reel

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