UMW SD05.TCT

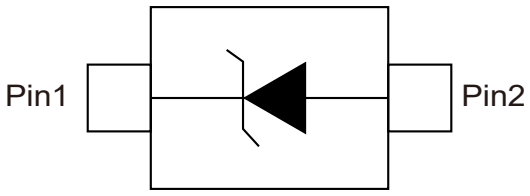
1.Features

- 360W 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 ±30kV air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 20A (8/20μs)

2.Applications

- USB Vbus,
- Power Line
- Power management
- SOD323 package
- Packaging: Tape and Reel
- RoHS/WEEE Compliant
- Molding compound flammability rating: UL94V-0

3.Pinning information



SOD-323

4.Absolute Maximum Ratings T_A= 25°C

Parameter	Symbol	Maximum	Units
Peak Pulse Power (tp=8/20μs)	P_{PP}	360	W
Peak Pulse Current (tp=8/20μs) (note1)	I_{PP}	20	A
ESD per IEC 61000-4-2 (Air)	V_{ESD}	30	kV
ESD per IEC 61000-4-2 (Contact)		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

5.Electrical Characteristic (T_A=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	6			V
Reverse Leakage Current	I_R	V_{RWM}=5V, T=25°C			1	μA
Clamping Voltage	V_C	I_{PP}=20A, t_p=8/20μs		17	19	V
Junction Capacitance	C_J	V_R=0V, f=1MHz		120	135	pF

6.Typical characteristic

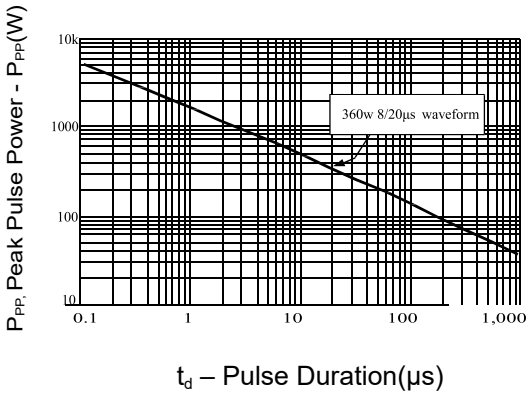


Figure 1: Peak Pulse Power vs. Pulse Time

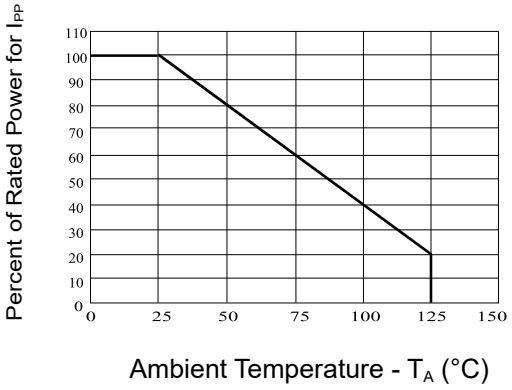


Figure 2: Power Derating Curve

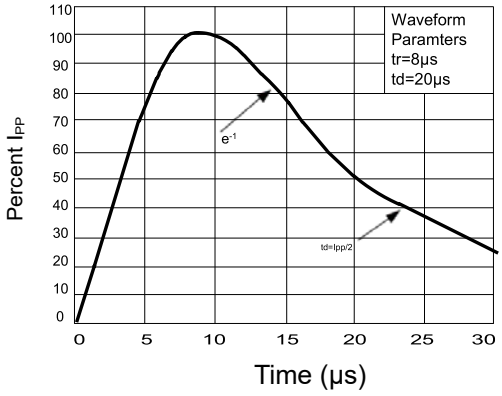


Figure 3: Pulse Waveform

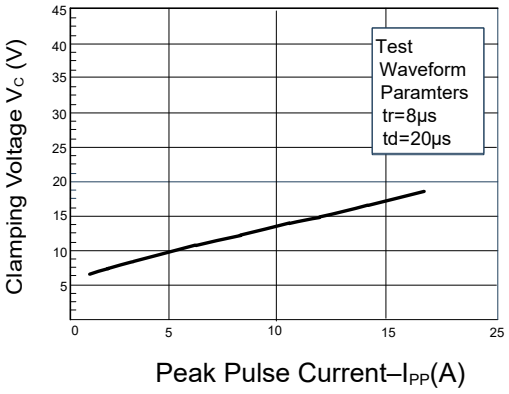
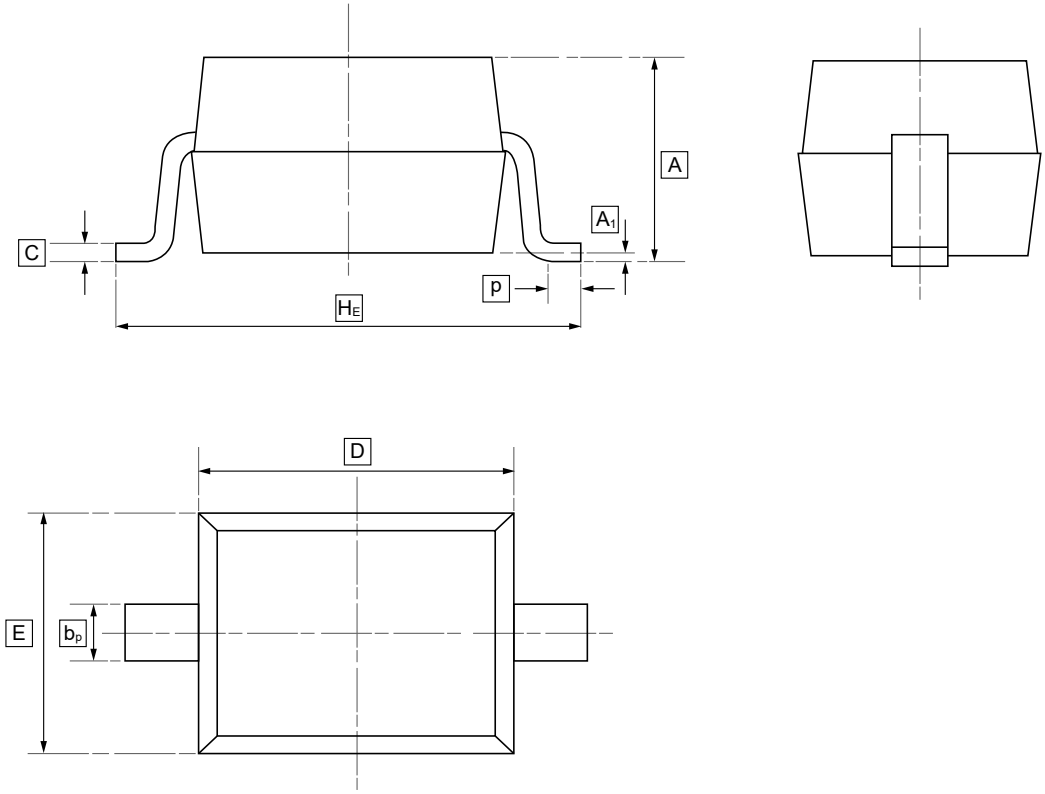


Figure 4: Clamping Voltage vs.I_{PP}

7.SOD-323 Package Outline Dimensions



DIMENSIONS (mm are the original dimensions)

Symbol	A	b_p	C	D	E	H_E	A_1	p
Min	0.90	0.25	0.10	1.60	1.15	2.30	0.01	0.20
Max	1.20	0.40	0.15	1.80	1.35	2.80	0.10	0.50

8.Ordering information

ww: Batch Code

Order Code	Package	Base QTY	Delivery Mode
UMW SD05.TCT	SOD-323	3000	Tape and reel

9.Disclaimer

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