

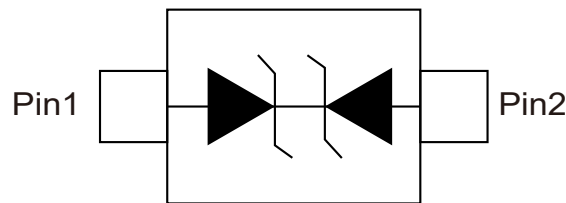
1.Features

- 130 Watts Peak Pulse Power per Linene ($t_p=8/20\mu s$)
- Working voltages: 5V
- Low Leakage Current
- Low operating and clamping voltages
- Solid-state silicon avalanche technology
- Provides ESD protection to IEC61000-4-2(ESD): $\pm 25kV$ (air discharge), $\pm 25kV$ (contact discharge)

2.Applications

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

3.Pinning information



SOD-523

4.Absolute Maximum Ratings

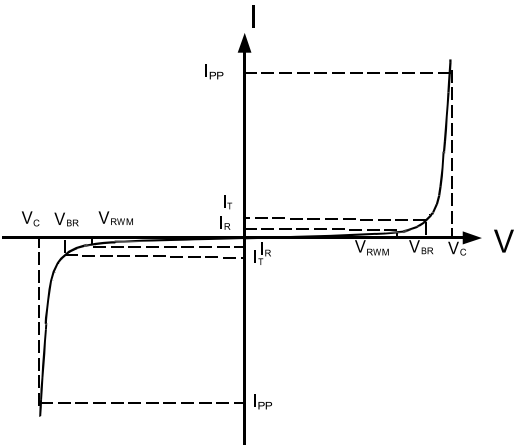
Parameter	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu s$)	P_{PP}	130	Watts
ESD Voltage (Contact)	V_{ESD}	± 25	kV
ESD Voltage (Air)		± 25	kV
Lead Soldering Temperature	T_L	260(10seconds)	$^{\circ}C$
Junction Temperature Range	T_{OP}	-55 to 150	$^{\circ}C$
Storage Temperature	T_{STG}	-55 to 155	$^{\circ}C$



5.Electrical Characteristics

Type Number	Reverse Stand-off Voltage	Minimum Breakdown Voltage	Peak Pulse Voltage @8/20μs	V _C @8/20μs		Reverse Leakage @V _{RWM}	Typical Capacitance
	V _{RWM}	V _{BR} @1mA	V _C @5A	(max.)	@I _{PP}	I _R @V _{RWM}	DC=0V C _J @ 1MHz
	V	V	V	V	A	μA	pF
RLSD52A051C	5	5.5	12.5	15	9	1	15

6.Electrical Parameters (T_A=25°C unless otherwise noted)

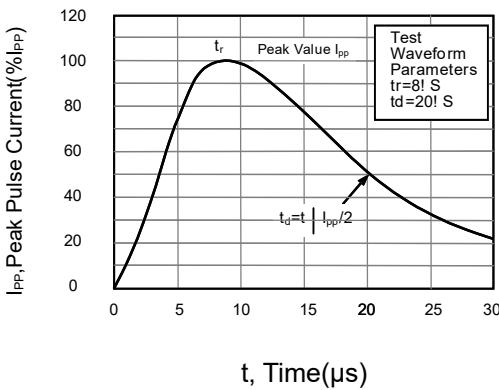
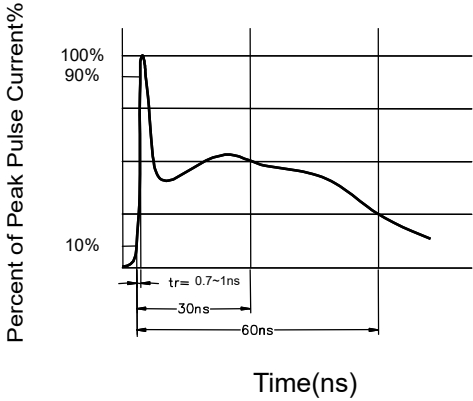
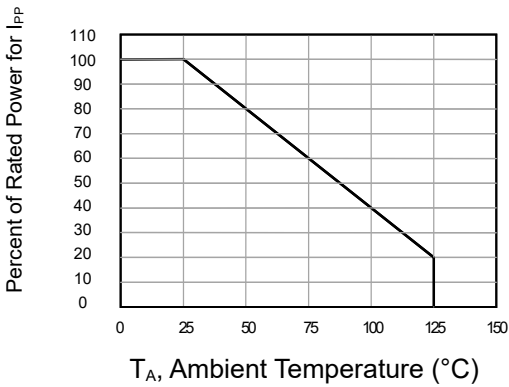
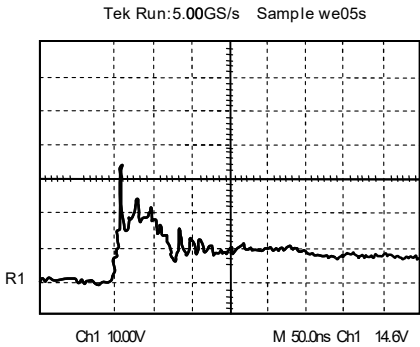


Symbol	Parameter
I _{PP}	Maximum Reverse Peak Pulse Current
V _C	Clamping Voltage @ I _{PP}
V _{RWM}	Working Peak Reverse Voltage
I _R	Maximum Reverse Leakage Current @ V _{RWM}
V _{BR}	Breakdown Voltage @ I _T
I _T	Test Current

Notes: 8/20μs pulse waveform.



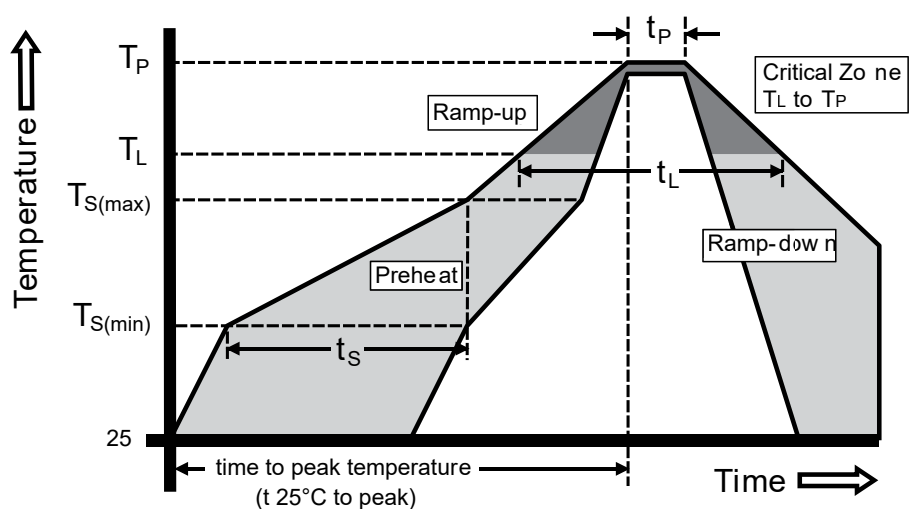
7. Typical characteristic

 Figure 1: 8/20µs Pulse Waveform	 Figure 2: ESD Pulse Waveform (according to IEC61000-4-2)
 Figure 3: Power Derating Curve	 Figure 4: ESD Clamping (8KV Contact per IEC61000-4-2).



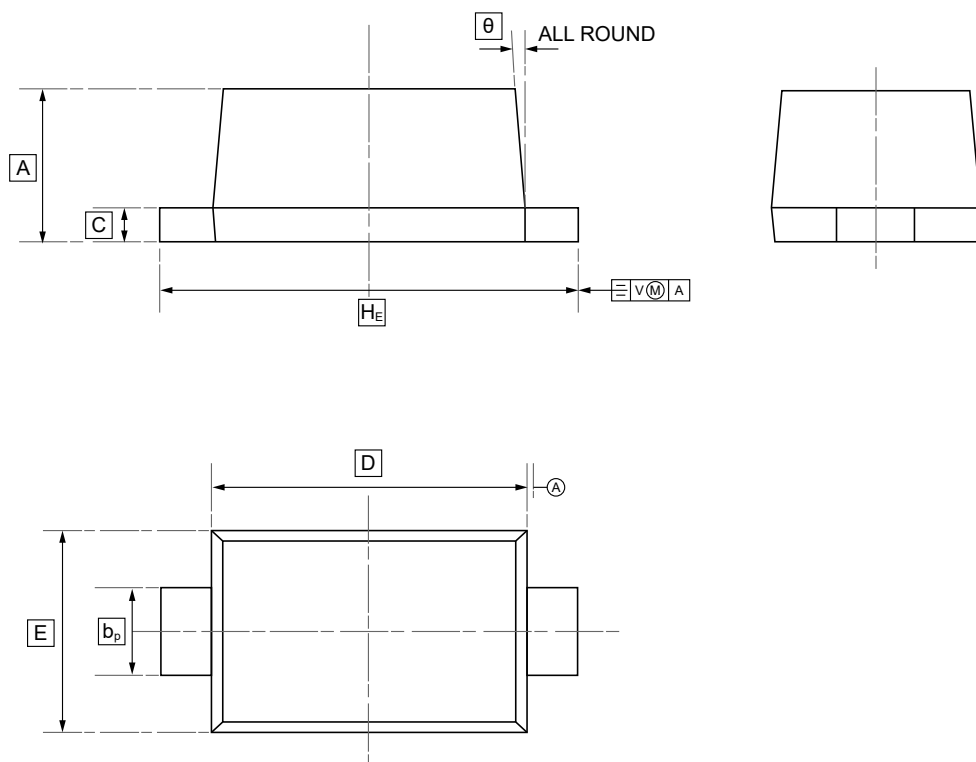
8. Soldering parameters

Reflow Condition		Pb-Free Assembly
Pre Heat	-Temperature Min ($T_{s(min)}$)	150°C
	-Temperature Max ($T_{s(max)}$)	200°C
	-Time (Min to Max) (t_s)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3°C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(T_L) (Liquidus)	217°C
	- Time (min to max) (t_s)	60-150 secs.
Peak Temp (T_p)		+260 $^{+0/-5}$ °C
Time within 5°C of actual Peak Temp (T_p)		20-40 seconds
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp (T_p)		8 min. Max
Do not exceed		280°C





9.SOD-523 Package Outline Dimensions

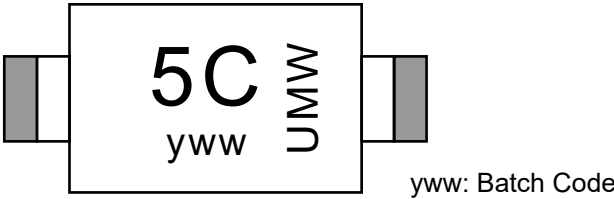


DIMENSIONS (mm are the original dimensions)

Symbol	A	b _p	C	D	E	H _E	θ
Min	0.58	0.3	0.100	1.15	0.75	1.5	5°
Max	0.68	0.4	0.135	1.25	0.85	1.7	



10.Ordering information



Order Code	Package	Base QTY	Delivery Mode
UMW RLSD52A051C	SOD-523	3000	Tape and reel



11.Disclaimer

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