

1.Description

The SMxx Series is designed for applications requiring transient overvoltage protection capability. They are intended for use in voltage and ESD sensitive equipment such as computers, printers, business machines, communication systems, medical equipment and other applications. These devices are ideal for situations where board space is at a premium.

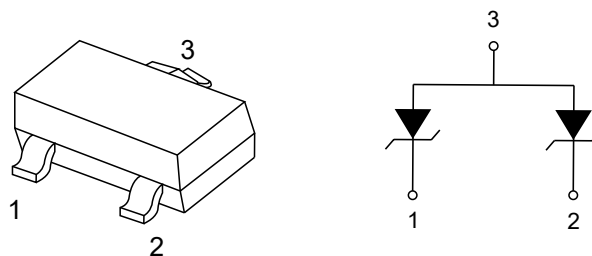
2.Features

- IEC61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- 350 Watts Peak Pulse Power per ($t_p=8/20\mu\text{s}$)
- Protects one bidirectional line or two unidirectional lines
- Low clamping voltage
- Working voltages : 3.3V to 36V
- Low leakage current

3.Applications

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Networking and Telecom
- Serial and Parallel Ports.
- Peripherals

4.Pinning information



SOT-23



5.Absolute Maximum Ratings

Parameter	Symbol	Value	Units
ESD per IEC 61000-4-2 (Air)	V _{ESD}	±15	kV
ESD per IEC 61000-4-2 (Contact)		±8	kV
Peak Pulse Power (8/20μs)	P _{PP}	350	W
Junction Temperature	T _{OPT}	-55 to 150	°C
Storage Temperature	T _{STG}	-55 to 150	°C
Lead Soldering Temperature	T _L	260 (10 sec.)	°C



6.Electrical Characteristics(T_J=25°C)

PART NUMBER	DEVICE MARKING	V _{RWM}	V _B	I _T	V _{C@1A}	V _C		I _R	C _J
		(V)	(V)	(mA)	(V)	(V)		(μA)	(pF)
		(max.)	(min.)		(max.)	(max.)	(@A)	(max.)	(max.)
UMW SM03	M03	3.3	4	1	7.0	14	20	40	450
UMW SM05	M05	5	6	1	9.8	18	17	10	300
UMW SM08	M08	8	8.5	1	13.4	24	15	2	240
UMW SM12	M12	12	13.3	1	19	32	11	1	130
UMW SM15	M15	15	16.7	1	24	38	10	1	120
UMW SM18	M18	18	20	1	29	45	9	1	100
UMW SM20	M20	20	22.3	1	35	50	8	1	90
UMW SM24	M24	24	26.7	1	43	52	7	1	80
UMW SM36	M36	36	40	1	60	75	5	1	60

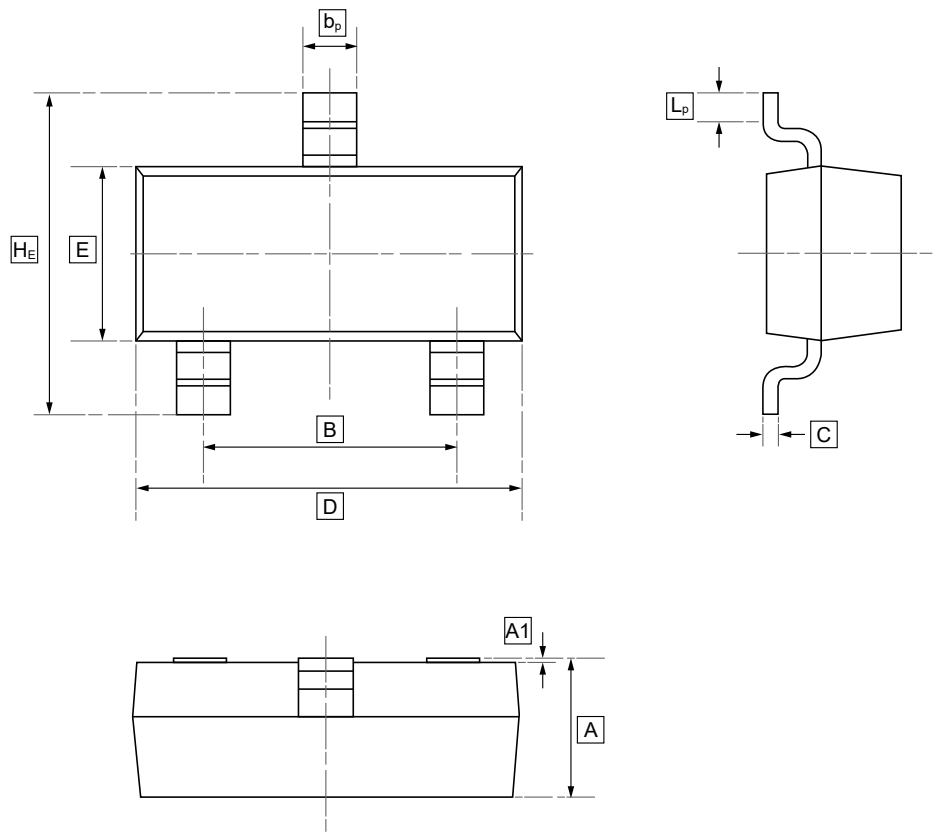


7. Typical characteristic

Figure 1: Pulse Waveform	Figure 2: Power Derating Curve
Figure 3: 8/20µs Pulse Waveform	



8.SOT-23 Package Outline Dimensions

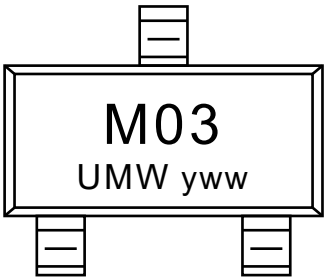


DIMENSIONS (mm are the original dimensions)

Symbol	A	B	b _p	C	D	E	H _E	A1	L _p
Min	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20
Max	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50



9.Ordering information



yww: Batch Code

Order Code	Marking	Package	Base QTY	Delivery Mode
UMW SM03	M03	SOT-23	3000	Tape and reel
UMW SM05	M05	SOT-23	3000	Tape and reel
UMW SM08	M08	SOT-23	3000	Tape and reel
UMW SM12	M12	SOT-23	3000	Tape and reel
UMW SM15	M15	SOT-23	3000	Tape and reel
UMW SM24	M24	SOT-23	3000	Tape and reel
UMW SM36	M36	SOT-23	3000	Tape and reel



10.Disclaimer

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