UMW SDxxC

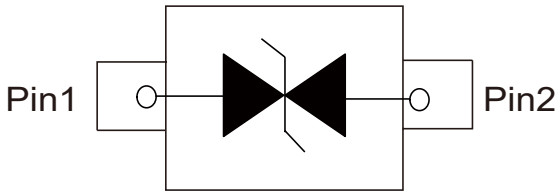
1.Features

The SDxxC 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

- IEC61000-4-4 (EFT) 40A (5/50ηs)
- 350 Watts Peak Pulse Power per (t_p=8/20μs)
- Protects one I/O line (bidirectional)
- Low clamping voltage
- Working voltages : 3V,5V,8V,12V,15V,18V,20V,24V,36V
- Low leakage current
- IEC61000-4-2 (ESD) ±30kV (air) ±30kV (contact)

3.Pinning information



SOD-323

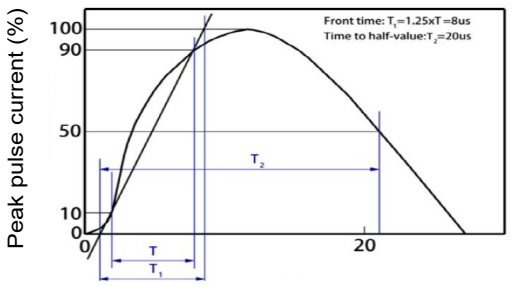
4.Absolute Maximum Ratings T_A= 25°C

Parameter	Symbol	Maximum	Units
ESD per IEC 61000-4-2 (Air)	V_{ESD}	±30	kV
ESD per IEC 61000-4-2(Contact)		±30	kV
Peak Pulse Power (8/20us)	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(10sec.)	°C

5.Electrical Characteristics(Tamb=25°C)

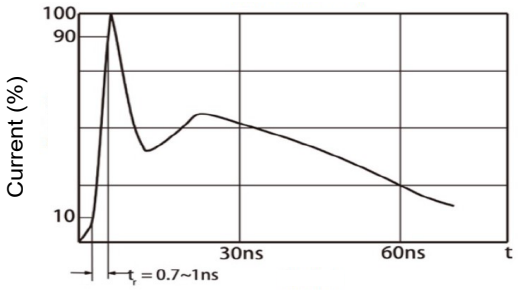
PART NUMBER	DEVICE MARKING	V_{RWM}(V)	V_B(V)	I_T(mA)	V_C@1A(V)	V_C(V)		I_R(μA)	C_T(pF)
		(max.)	(min.)		(max.)	(max.)	(@A)	(max.)	(max.)
UMW SD03C	2A	3.3	4.0	1	7.5	16.0	20	40	450
UMW SD05C	2B	5.0	6.0	1	9.8	18.0	17	10	200
UMW SD08C	2C	8.0	8.5	1	13.4	24.0	15	2	120
UMW SD12C	2D	12.0	13.3	1	19.0	32.0	11	1	75
UMW SD15C	2J	15.0	16.7	1	24.0	38.0	10	1	68
UMW SD18C	2K	18.0	20.0	1	29.0	45.0	9	1	57
UMW SD20C	2L	20.0	22.3	1	35.0	50.0	8	1	52
UMW SD24C	2H	24.0	26.7	1	43.0	52.0	7	1	50
UMW SD36C	2N	36.0	40.0	1	60.0	75.0	4.5	1	35

6.Typical characteristic



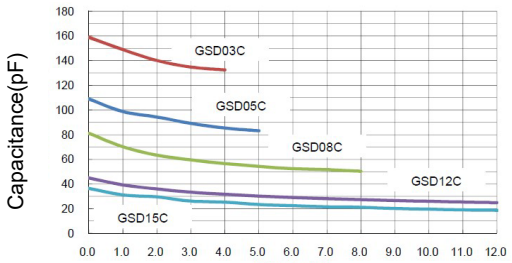
Time (us)

Figure 1: 8/20μs Waveform per IEC61000-4-5



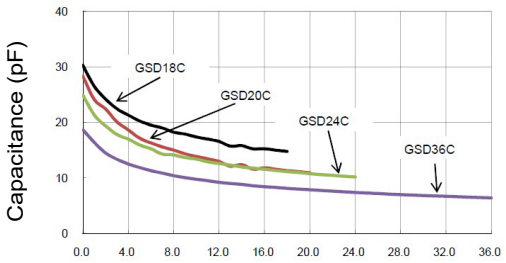
Time (ns)

Figure 2: Contact Discharge Current Waveform per IEC 61000-4-2)



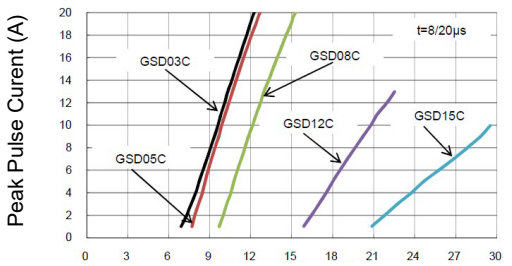
Voltage (V)

Figure 3: Voltage vs Capacitance



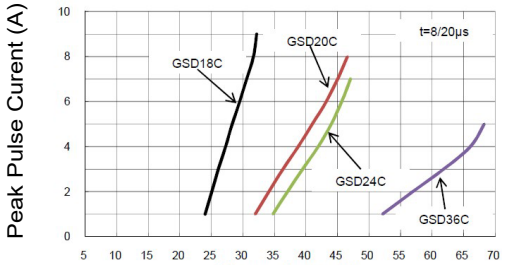
Voltage (V)

Figure 4: Voltage vs Capacitance



Clamping Voltage (V)

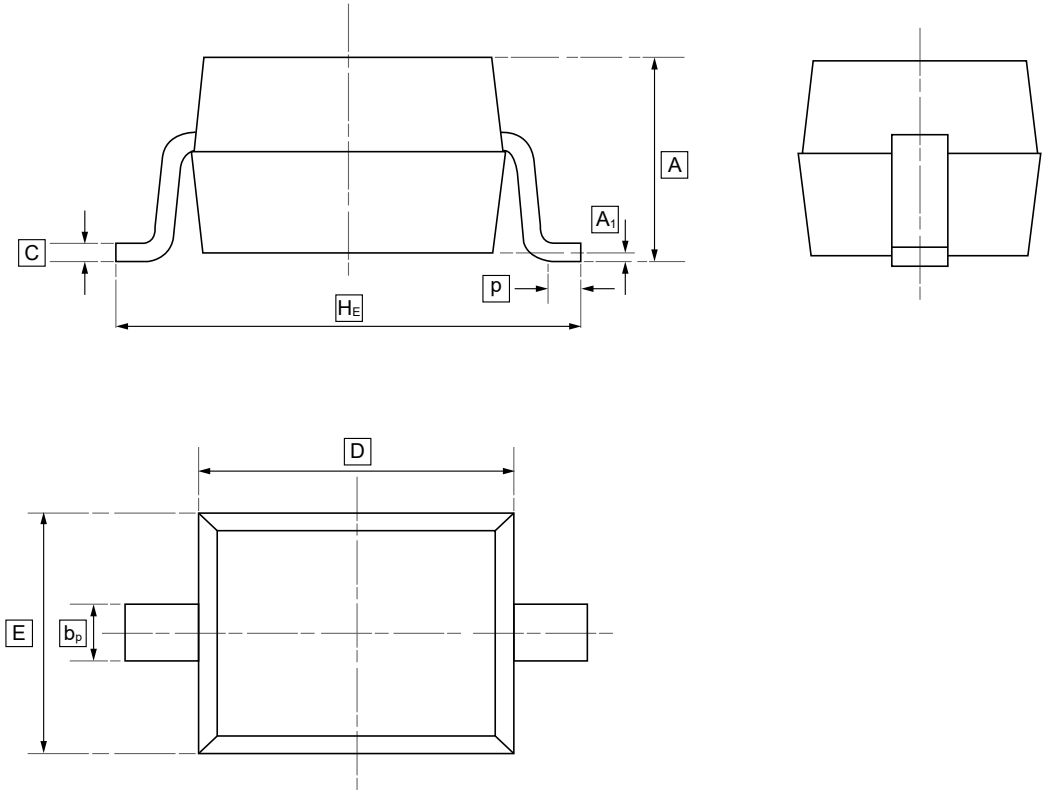
Figure 5: Clamping Voltage vs Peak Pulse Current



Clamping Voltage (V)

Figure 6: Clamping Voltage vs Peak Pulse Current

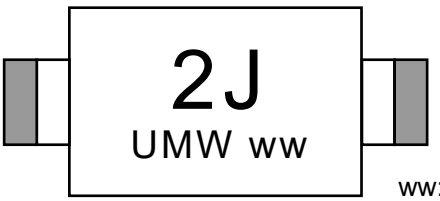
7.SOD-323 Package Outline Dimensions



DIMENSIONS (mm are the original dimensions)

Symbol	A	b_p	C	D	E	H_E	A_1	p
Min	0.80	0.25	0.10	1.50	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	Marking	Package	Base QTY	Delivery Mode
UMW SD03C	2A	SOD-323	3000	Tape and reel
UMW SD05C	2B	SOD-323	3000	Tape and reel
UMW SD08C	2C	SOD-323	3000	Tape and reel
UMW SD12C	2D	SOD-323	3000	Tape and reel
UMW SD15C	2J	SOD-323	3000	Tape and reel
UMW SD18C	2K	SOD-323	3000	Tape and reel
UMW SD20C	2L	SOD-323	3000	Tape and reel
UMW SD24C	2H	SOD-323	3000	Tape and reel
UMW SD36C	2N	SOD-323	3000	Tape and reel



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