BSD03C through BSD24C

Single Line TVS for ESD Protection Device in Portable Electronics

Applications

- Personnal Digital Assistance
- Wireless System
- Cellular Phones
- Desktops and servers
- Pagers
- Peripherals

Feature

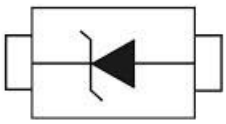
- Uni-directional configurations
- ESD Protection:Level 4
- Low clamping voltage
- 350 Watts peak pulse power per line(tp=8/20uS)
- Working voltages:3.3V,5V,12V,15V,24V
- Protection one power line or I/O port

IEC Compatibility

- EN61000-4
- 61000-4-2(ESD):Level 4,Contact:±8kv,Air::±15kv
- 61000-4-4(EFT):40A-5/50ns
- 61000-4-5(Surge):30A(3V),8/20us



SOD323



Mechanical Characteristics

- Molded JEDEC SOD-323
- Weight 5 milligrams
- Flammability rating UL 94V-0
- Halogen Free

Device Characteristics

Maximum Ratings@25 unless otherwise specified			
Parameter	Symbol	Value	Units
Peak pulse power (tp=8/20us) see fig 1.	P_{PP}	350	Watts
ESD Voltage (HBM Waveform per IEC 61000-4-2)	V_{ESD}	30	KV
Operating Temperature	T_J	-55~150	°C
Storage Temperature	T_{STG}	-55~150	°C

Electrical Characteristics

Electronical characteristics per line @25□ unless otherwise specified						
Part No.	Rated Stand-off Voltage V_{RWM} (Volts)	Minimum Breakdown Voltage @1mA $V_{(BR)}$ (Volts)	Maximum Clamping Voltage @I_{PP}=1A V_C (Volts)	Peak Pulse Current @8/20us I_{PP} (A)	Maximum Leakage Current @V_{RWM} I_R (μA)	Maximum Capacitance @0V,1MHZ C (ρF)
BSD03C	3.3	5.2	6.9	30	15	300
BSD05C	5.0	6.0	9.8	24	10	200
BSD12C	12.0	13.3	19.0	15	1	100
BSD15C	15.0	16.7	24.0	12	1	75
BSD24C	24.0	26.7	42.0	8	1	50

Rating and characteristic curve

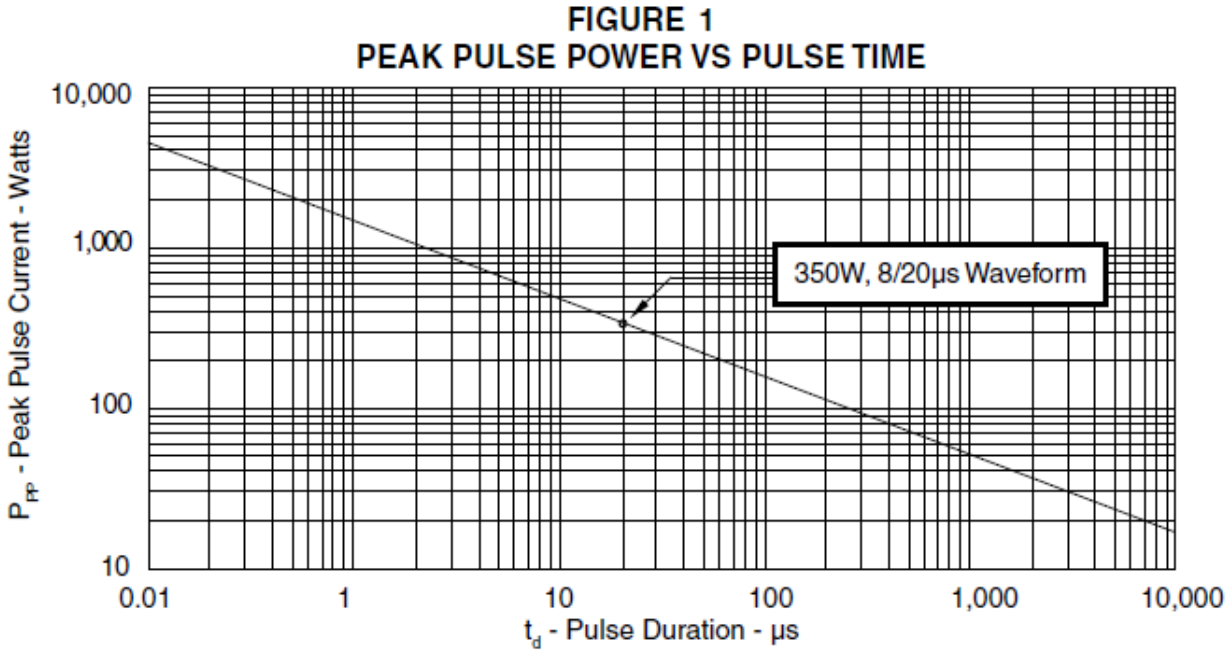


FIGURE 2
Power Derating Curve

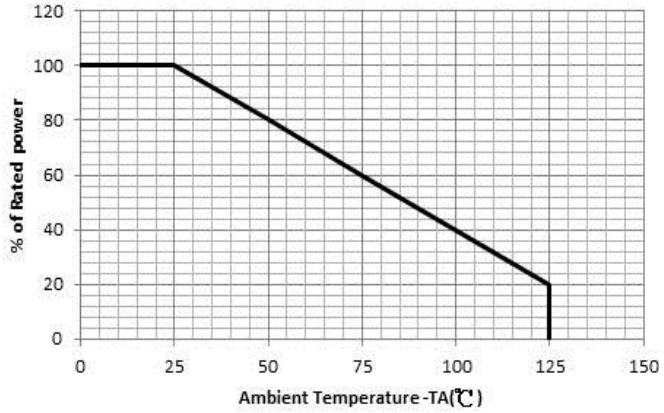
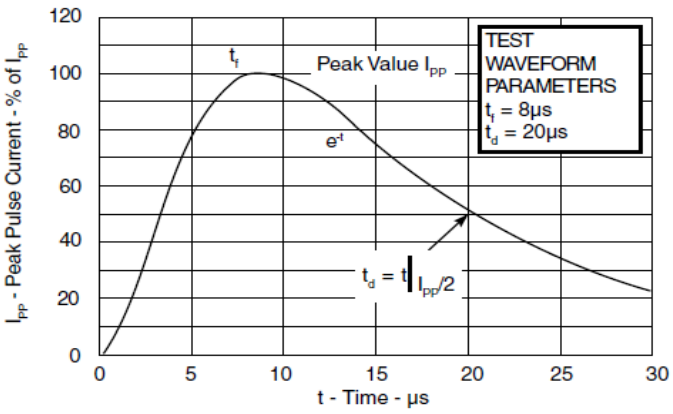
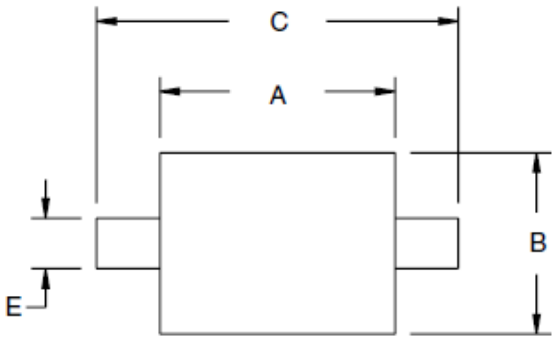


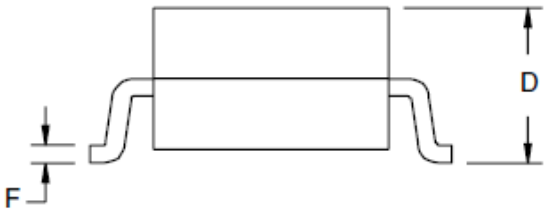
FIGURE 3
Pulse Wave Form

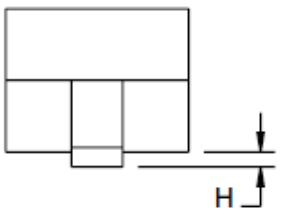


Package information

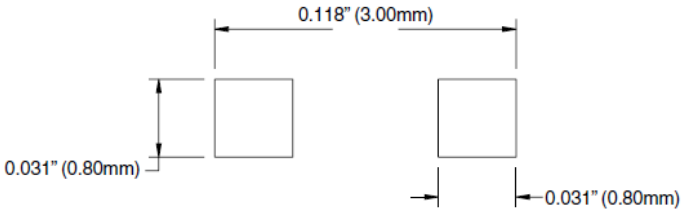


Package dimensions				
DIM	Millmeters		Inchs	
	Min	Max	Min	Max
A	1.60	1.90	0.063	0.075
B	1.15	1.45	0.045	0.057
C	2.39	2.70	0.094	0.106
D	0.92	1.10	0.036	0.043
E	0.25	0.40	0.010	0.016
F	0.10	0.20	0.004	0.008
H		0.10		0.004





Mounting pad

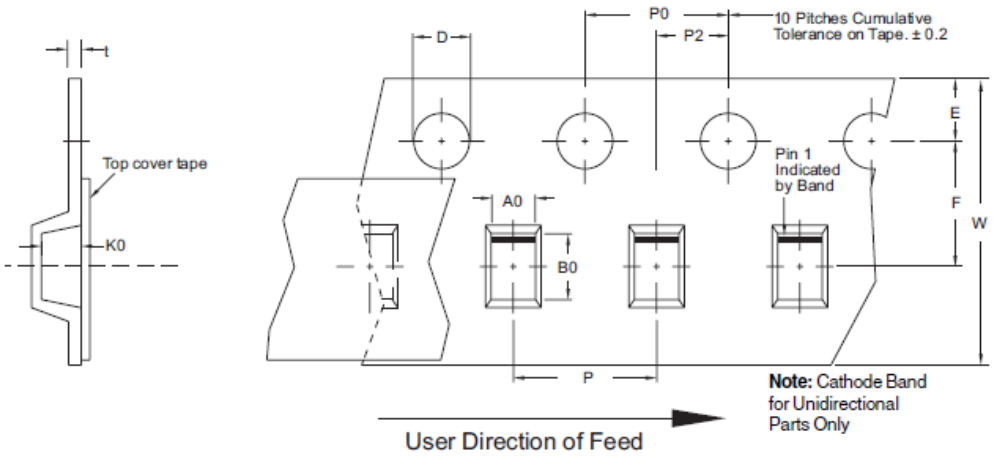


Ordering information

Marking code

Part No.	Package	Marking	Shipping	Reel Size
BSD03C	SOD-323	03A	3,000/ Tape@Reel	7”
BSD05C	SOD-323	05A	3,000/ Tape@Reel	7”
BSD12C	SOD-323	12A	3,000/ Tape@Reel	7”
BSD15C	SOD-323	15A	3,000/ Tape@Reel	7”
BSD24C	SOD-323	24A	3,000/ Tape@Reel	7”

Tape&Reel information



Reel Dia.	Tape width	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm	8mm	1.55 ±0.1	2.9 ±0.1	1.35 ±0.1	1.5 ±0.1	1.75 ±0.1	3.5 ±0.05	8.0 ±0.3	4.0 ±0.1	2.0 ±0.05	4.0 ±0.1	0.25

Futurewafer Technology Co., Ltd 台灣未來芯航電股份有限公司
桃園市桃園區中正路 987 巷 50 弄 2 號
Tel ：+886-3-3573583 / Fax ：+886-3-3574065
Futurewafer.com.tw