

**Applications**

- Lan equipment
- Video
- DVI
- High Speed Data Line
- Ethernet
- USB 2.0 Power and Data line Protection


**SOD523-2L**

**Feature**

- With TVS Diode
- ESD Protection : Level 4
- Low clamping voltage
- 300 Watts peak pulse power per line (tp=8/20uS)
- Ultra low capacitance:30pf max. (any I/O to GND.)
- Protection one line I/O port

**IEC Compatibility**

- EN61000-4
- 61000-4-2(ESD):Level 4,Contact:±30kv,Air:±30kv
- 61000-4-4(EFT):40A-5/50ns
- 61000-4-5(Surge):12A-8/20us

**Mechanical Characteristics**

- Molded JEDEC SOD523 package
- Packing: Tape and Reel
- Flammability rating UL 94V-0
- Halgen Free

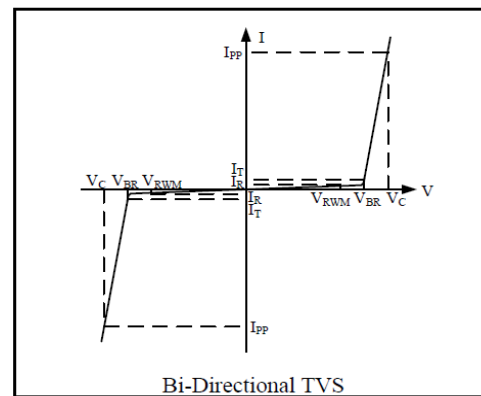
**Device Characteristics**

<b>Maximum Ratings@25 unless otherwise specified</b>			
Parameter	Symbol	Value	Units
Peak pulse power (tp=8/20us)	PPP	130	Watts
Operating Temperature	TJ	-55~150	°C
Storage Temperature	TSTG	-55~150	°C

### Electrical Characteristics

Parameter	Symbol	Condition	min	max	Units
Reverse Stand-off Voltage	VRWM	Pin 2 to 1/Pin 1 to 2		5	V
Reverse Breakdown Voltage	VBR	IZ=1mA Pin to 1/pin 2-1	5.6	9.4	V
Reverse Leakage Current	IR(max)	@VRWM		0.9	uA
Forward Voltage	VF(max)	IF=15mA		1.15	V
Clamping Voltage	VC	IPP=1A tp=8/20us		10	V
Peak Pulse Current	IPP	tp=8/20us		12	A
Junction Capacitance	C I/O	Pin capacitance to GND. Vdc=0V,f=1MHZ		30	pf

Symbol	Parameter
$V_{RWM}$	Nominal Reverse Working Voltage
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Reverse Breakdown Voltage @ $I_T$
$I_T$	Test Current for Reverse Breakdown
$V_C$	Clamping Voltage @ $I_{PP}$
$I_{PP}$	Maximum Peak Pulse Current
$C_{ESD}$	Parasitic Capacitance
$V_R$	Reverse Voltage
f	Small Signal Frequency



### Rating and characteristic curve

FIGURE 1  
Power Derating Curve

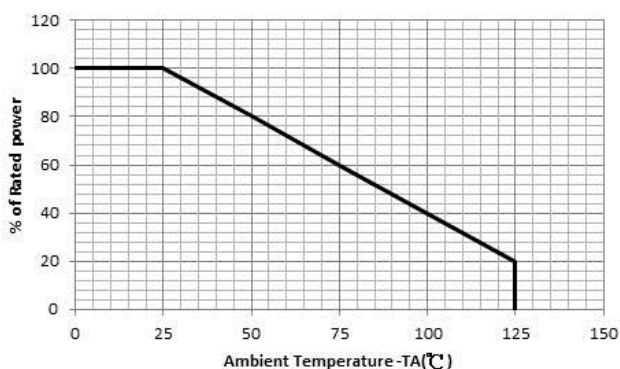
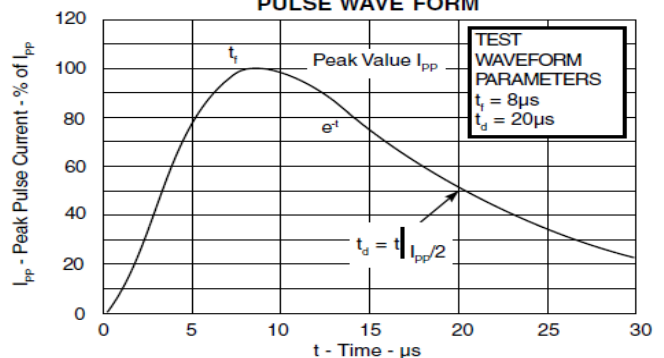


FIGURE 2  
PULSE WAVE FORM



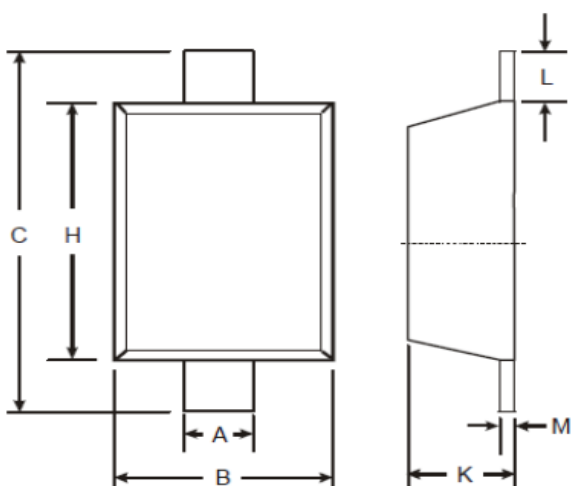
## Ordering information

### Marking codes



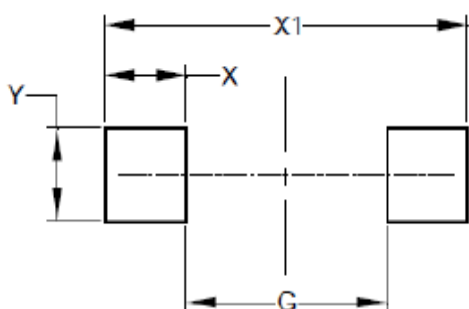
Part No.	Marking Code
FM05D5	FG
Quantity	5,000pcs

## Package Information



SOD523		
Dim	Min	Max
A	0.25	0.35
B	0.70	0.90
C	1.50	1.70
H	1.10	1.30
K	0.55	0.65
L	0.10	0.30
M	0.10	0.12
<b>All Dimensions in mm</b>		

## Mounting pad



Dimensions	Value (in mm)
G	0.80
X	0.60
X1	2.00
Y	0.70



Futurewafer Technology co., Ltd 台灣未來芯航電股份有限公司

Tel : +886-3-3573583 / Fax : +886-3-3574065

Futurewafer.com.tw

桃園市桃園區中正路 987 巷 50 弄 2 號