

FEATURES

- | 100W Peak Pulse Power per Line (tp=8/20μs)
- | Protects five I/O lines
- | Low clamping voltage
- | Small package: SOT-23-5
- | Low leakage current
- | Working voltage: 3.3 V

APPLICATIONS

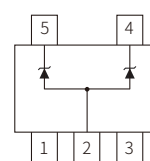
- | Cellular Phone Handsets and Accessories
- | Microprocessor based equipment
- | Personal Digital Assistants (PDA' s)
- | Notebooks,Desktops,and Servers
- | Portable Inserumentation
- | Networking and Telecom
- | Servers and Parallel Ports
- | Peripherals



SOT-23-5L



Marking



Schematic Symbol

IEC COMPATIBILITY

- | IEC61000-4-2 (ESD) ±12kV (air), ±15kV (contact)
- | IEC61000-4-4 (EFT) 40A (5/50ns)

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

THERMAL CONSIDERATIONS

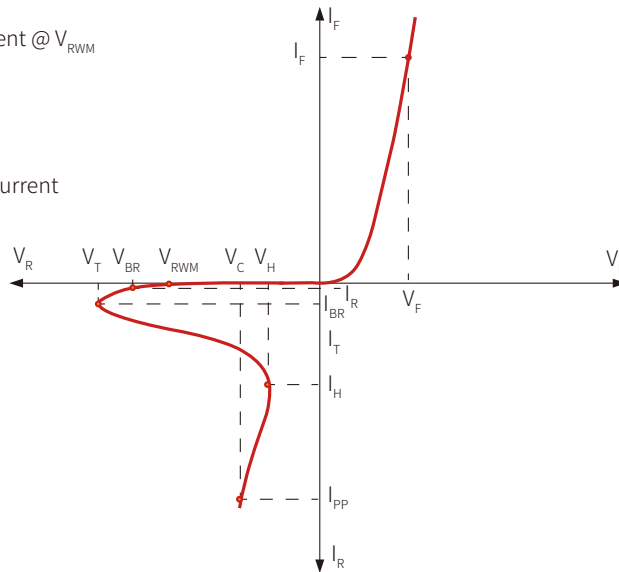
Symbol	Parameter	Value	Unit
P_{pp}	Peak Pulse Power (tp=8/20μs waveform)	100	Watts
T_J	Operating Temperature Range	-55 to +150	°C
T_{STG}	Storage Temperature Range	-55 to +150	°C

ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
V_{RWM}	Reverse Stand-off Voltage			3.3	3.6	V
V_{BR}	Reverse Breakdown Voltage	$I_T=1mA$	4.2			V
I_R	Reverse Leakage Current	$V_{RWM}=3.3V$			0.5	μA
V_{CL}	Clamping Voltage	$I_{pp}=4A, tp=100ns$		3.8		V
V_{CL}	Clamping Voltage	$I_{pp}=16A, tp=100ns$		8.7		V
I_{PP}	Peak Pulse Current	tp=8/20μs			5	A
C_J	Off State Junction Capacitance	$V_R=0V, f=1MHz$		0.55		pF

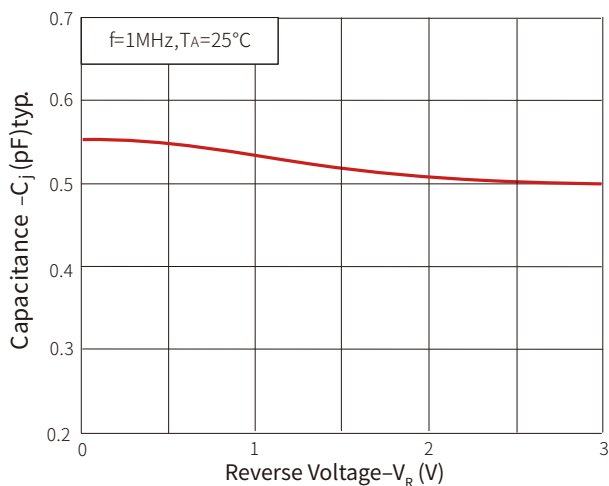
ELECTRICAL PARAMETERS ($T_A = 25^\circ\text{C}$)

- V_{RWM} Reverse Working Voltage Max.
- I_R Maximum Reverse Leakage Current @ V_{RWM}
- V_T Trigger Voltage
- V_H Holding Voltage
- I_H Holding Current
- V_{BR} Reverse Breakdown Voltage
- I_{PP} Maximum Reverse Peak Pulse Current
- V_C Clamping Voltage @ I_{PP}

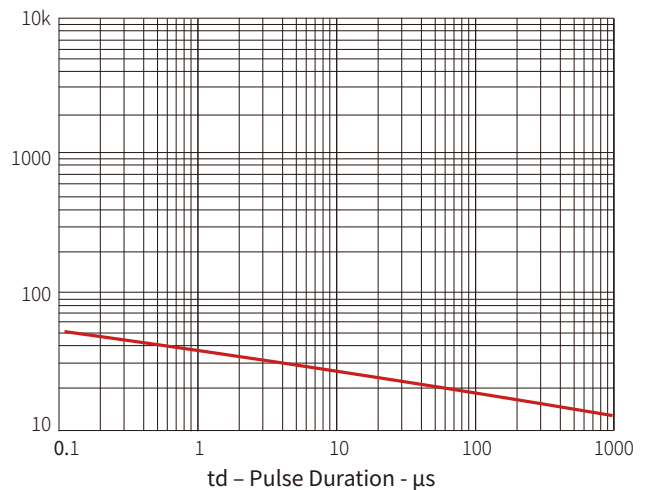


CHARACTERISTIC CURVES

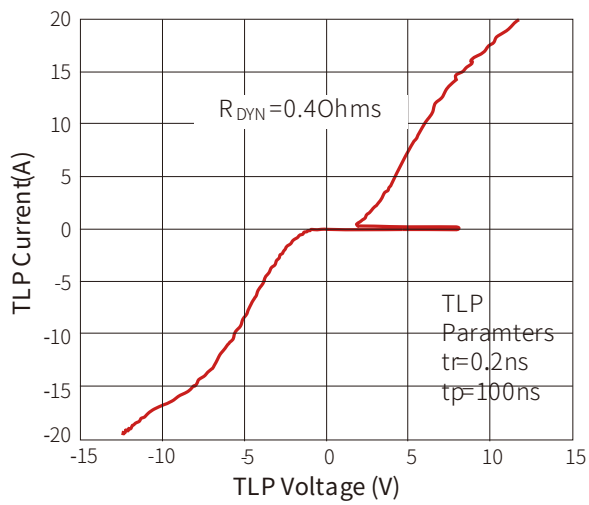
Capacitance vs. Reverse Voltage



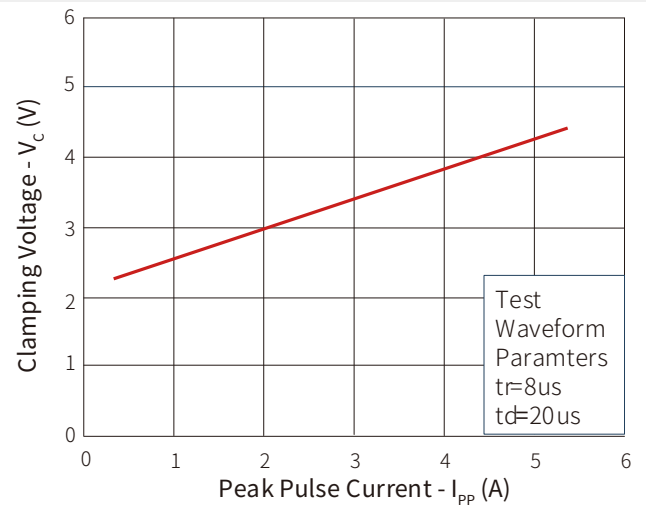
Peak Pluse Power vs. Pluse Time



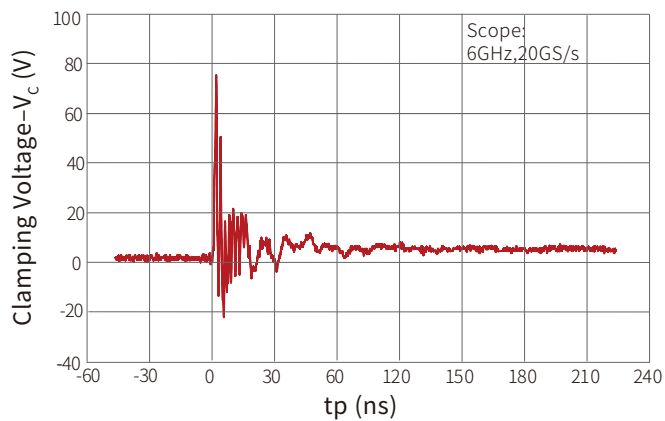
TLP I-V Curve



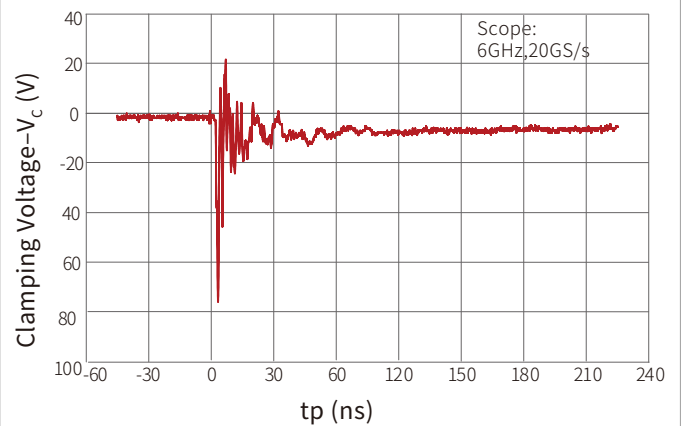
Reverse Clamping Voltage vs. Peak Pulse Current



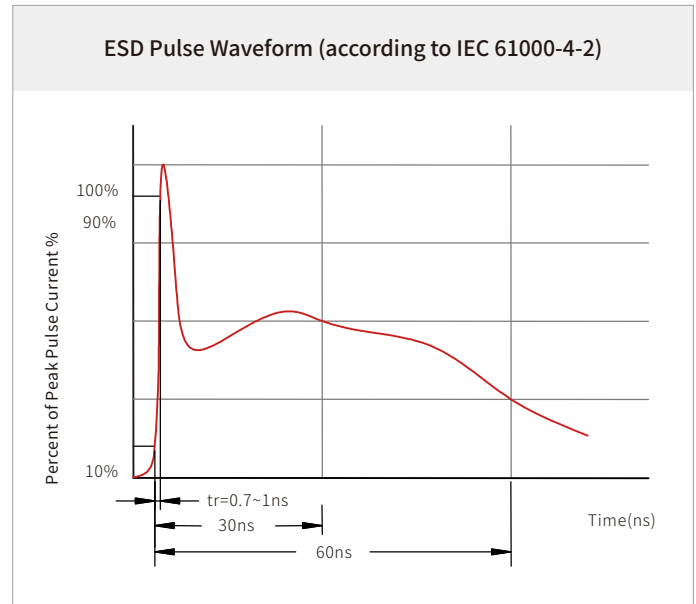
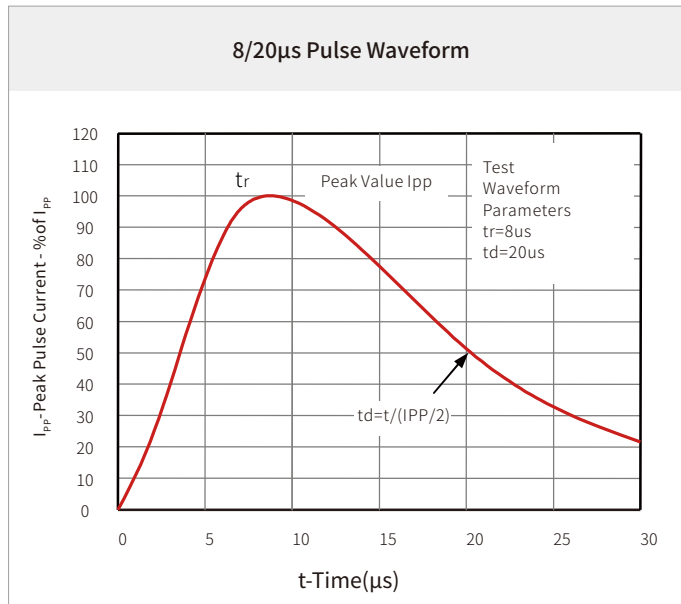
IEC61000-4-2 : 8 kV positive pulse(I/O to GND)



IEC61000-4-2 : 8 kV positive pulse(GND to I/O)

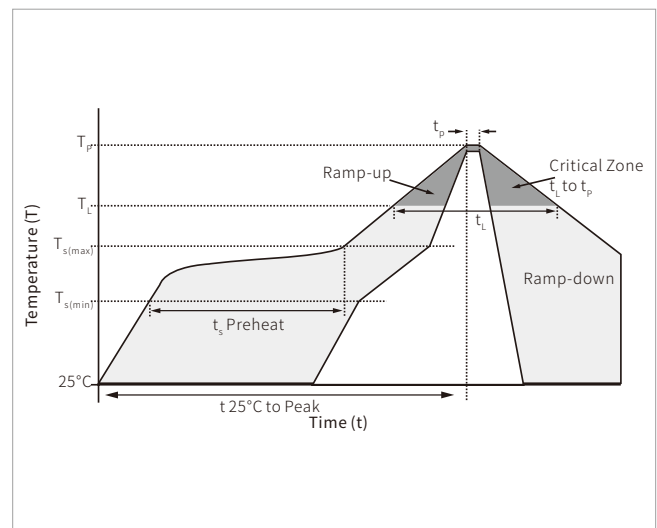


CHARACTERISTIC CURVES

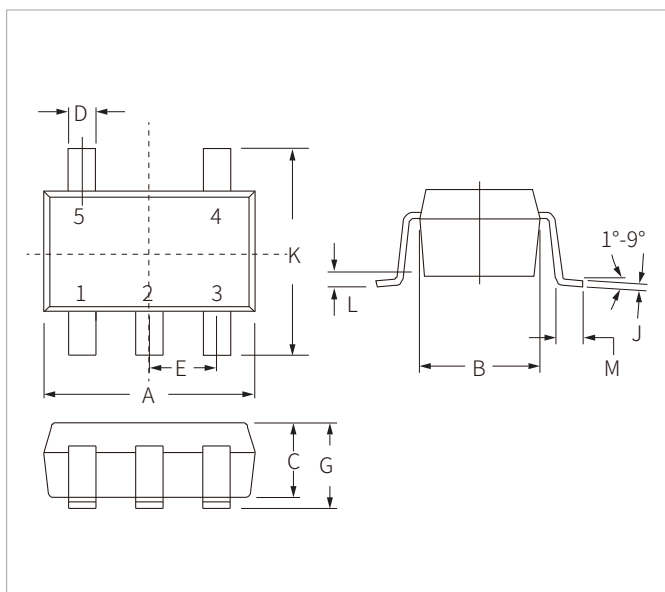


SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak		3°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Time (min to max) (t_L)	60 – 150 seconds
Peak Temperature (T_p)		260°C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes max.
Do not exceed		260°C

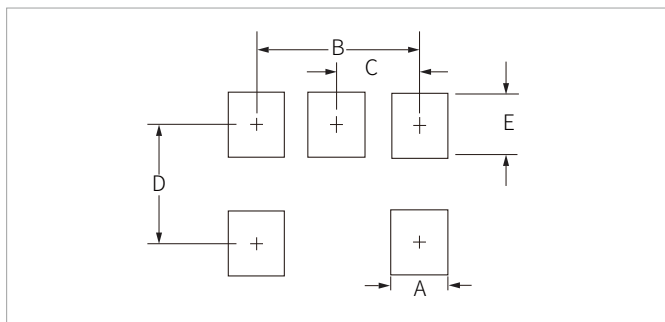


SOT-23-5L PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.80	3.10	0.110	0.122
B	1.50	1.80	0.059	0.071
C	0.90	1.30	0.036	0.051
D	0.25	0.50	0.010	0.020
E	0.95(Typ)		0.037(Typ)	
G	0.90	1.40	0.036	0.055
J	0.08	0.25	0.003	0.010
K	2.60	3.00	0.102	0.118
L	0.00	0.10	0.00	0.004
M	0.37	2.64	0.014	-

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters	Inches
	Nominal	Nominal
A	0.70	0.028
B	1.90	0.074
C	0.95	0.037
D	2.40	0.094
E	1.00	0.039

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SE25T10U3.3MA	SOT-23-5L	3000PCS	7"

Headquarters

No.3387 Shendu Road
Pujiang I&E Park
Minhang Shanghai China
201000

Hotline

400-021-5756

Web

<https://www.semiware.com>

Sales Center

Tel: 86-21-3463-7458
Email: sales18@semiware.com

Customer Service

Tel: 86-21-5484-1001
Email: sales17@semiware.com

Technical Support

Tel: 86-21-3463-7654
Email: fae01@semiware.com

Complaint & Suggestions

Tel: 86-21-3463-7172
Ext: 8868
Email: cs03@semiware.com

By QR Code

Website



Wechat

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