

TDSEMIC

拓電半導體

自主封測 品質把控 售後保障

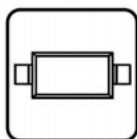
WEB WWW.TDSEMIC.COM 



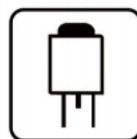
電源管理



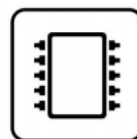
顯示驅動



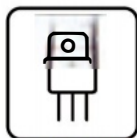
二三極管



LDO穩壓器



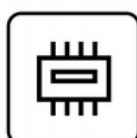
觸摸芯片



MOS管



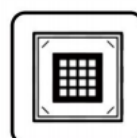
運算放大器



存儲芯片



MCU



串口通信

PESD3V3L4UG-TD

產品規格說明書-

General Description

The PESD3V3L4UG-TD is a monolithic suppressor designed to protect components connected to data and transmission lines against ESD. The device clamps the voltage just above the logic level supply for positive transients, and to a diode drop below ground for negative transients.

Features

- 4 Unidirectional Transil functions
- Breakdown voltage:
 - VBR = 6.1 V min. and 25 V min.
- Low leakage current: < 1 mA
- Very small PCB area < 4.2 mm2 typically
- High ESD protection level: up to 25 kV
- High integration
- Pb-Free Package is Available
- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

Complies with the following standards

IEC61000-4-2

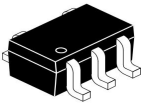
Level 4 16 kV (air discharge)
9 kV (contact discharge)

MIL STD 883E - Method 3015-7 Class 3

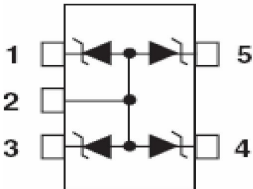
25 kV HBM (Human Body Model)

Applications

- Computers
- Printers
- Communication systems
- Cellular phones handsets and accessories
- Wireline and wireless telephone sets
- Set top boxes



SC-88A/SOT-353



ORDERING INFORMATION

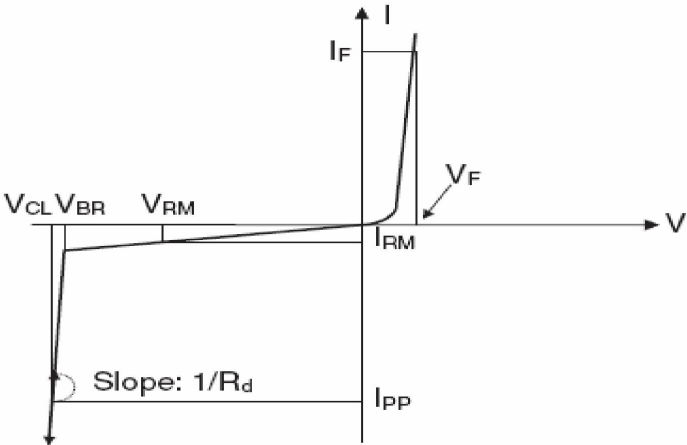
Device	Marking	Shipping
PESD3V3L4UG-TD	WE	3000/Tape & Reel

Absolute Ratings (T_{amb}=25°C)

Symbol	Parameter		Value	Units
P _{PP}	Peak Pulse Power (t _p = 8/20μs)	PESD3V3L4UG-TD	150	W
T _L	Maximum lead temperature for soldering during 10s		260	°C
T _{stg}	Storage Temperature Range		-40 to +125	°C
T _{op}	Operating Temperature Range		-40 to +125	°C

Electrical Parameter

Symbol	Parameter
V_{RM}	Stand-off voltage
V_{BR}	Breakdown voltage
V_{CL}	Clamping voltage
I_{RM}	Leakage current
I_{PP}	Peak pulse current
I_R	Reverse current
I_F	Forward current
αT	Voltage temperature coefficient
V_F	Forward voltage drop
C	Capacitance
R_d	Dynamic



Electrical Characteristics

Part Numbers	V_{BR}		I_R	V_{RM}	I_{RM}	V_F	I_F	R_d	αT	C
	Min.	Max.				Max.		Typ. ⁽¹⁾	Max. ⁽²⁾	Typ. 0v bias
	v	v				v		Ω	$10^{-4}/^{\circ}C$	pF
PESD3V3L4UG-TD	6.1	7.2	1	5	1	1.25	200	0.61	6	90

1. Square pulse $I_{PP}=15A, t_p=2.5\mu s$ 2. $V_{BR}=\alpha T*(T_{amb}-25^{\circ}C)*V_{BR}(25^{\circ}C)$

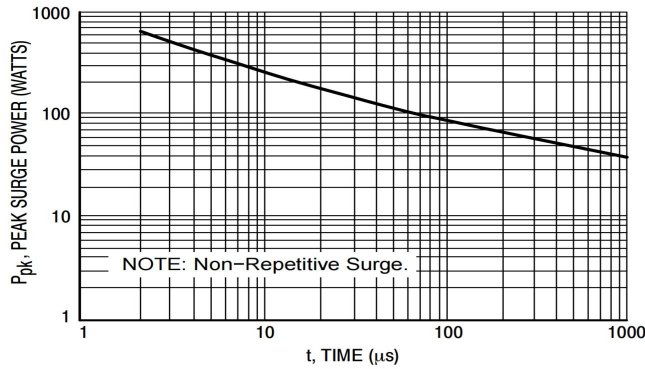


Figure 1. Pulse Width

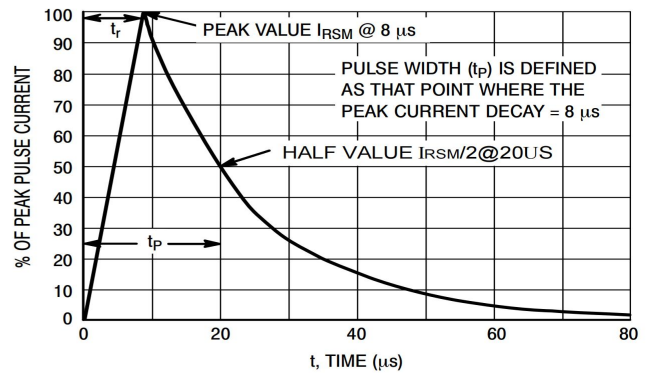


Figure 2. 8 x 20 μs Pulse Waveform

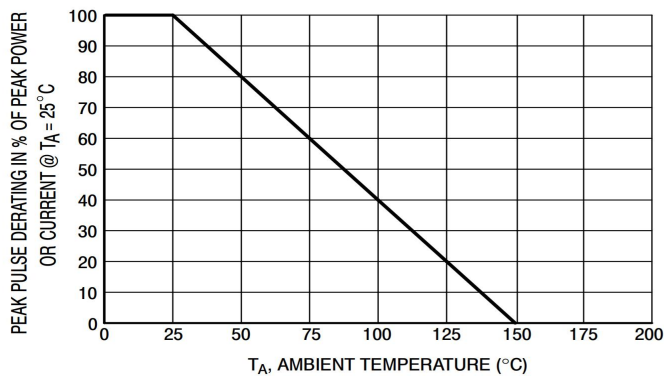


Figure 3. Pulse Derating Curve

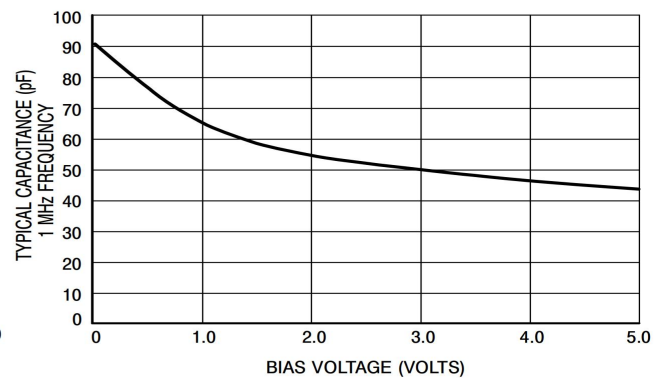


Figure 4. Capacitance

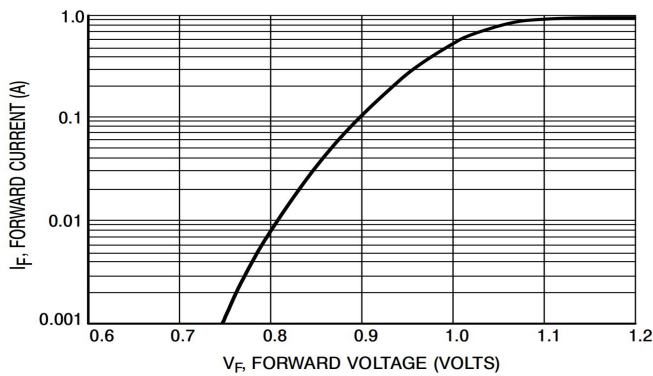


Figure 5. Forward Voltage

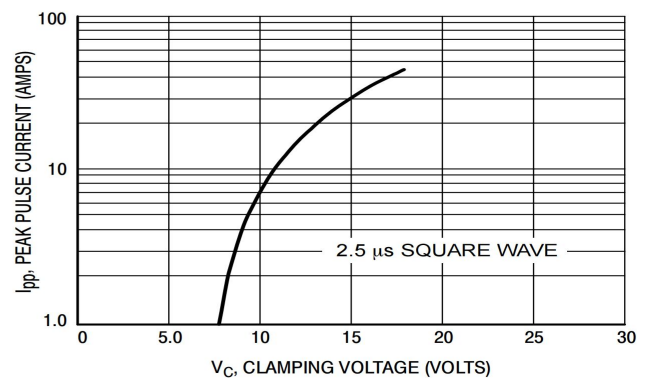
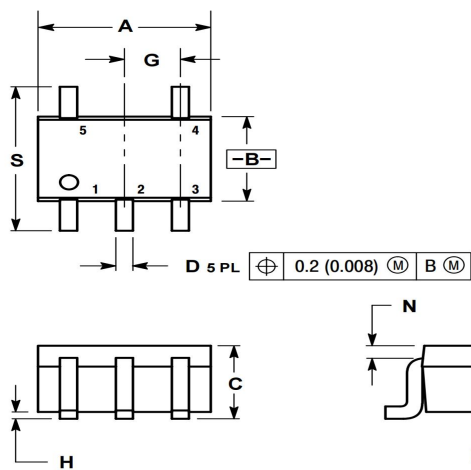


Figure 6. Clamping Voltage versus Peak Pulse Current (Reverse Direction)

SC-88A/SOT-353



- NOTES:
- 1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
 - 2. CONTROLLING DIMENSION: INCH.
 - 3. 419A-01 OBSOLETE. NEW STANDARD 419A-02.
 - 4. DIMENSIONS A AND B DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.071	0.087	1.80	2.20
B	0.045	0.053	1.15	1.35
C	0.031	0.043	0.80	1.10
D	0.004	0.012	0.10	0.30
G	0.026 BSC		0.65 BSC	
H	---	0.004	---	0.10
J	0.004	0.010	0.10	0.25
K	0.004	0.012	0.10	0.30
N	0.008 REF		0.20 REF	
S	0.079	0.087	2.00	2.20

SOLDERING FOOTPRINT*

