

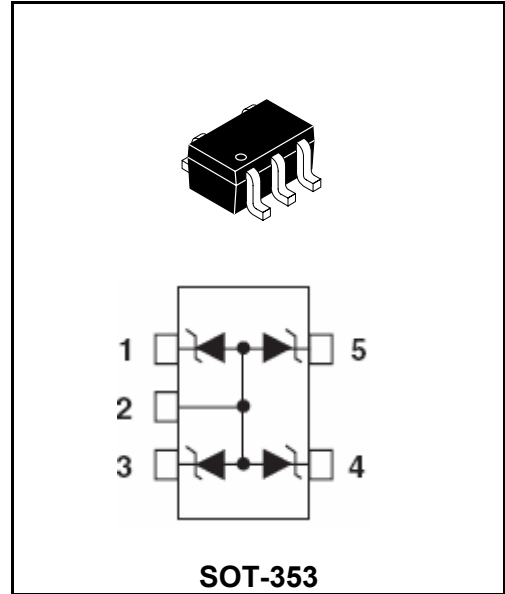
Low Capacitance Quad Array for ESD Protection

Features

- ◆ 4 Unidirectional Transil functions
- ◆ Breakdown voltage:
- ◆ 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.
- ◆ IEC61000-4-2 (ESD) ±16kV(air), ±9kV(contact)

Application

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



Marking Code

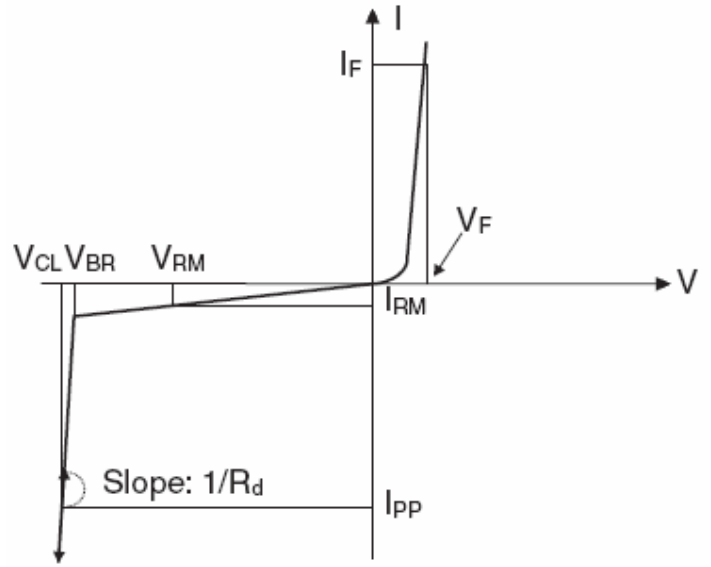
PESD3V3L4UG	WE
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Limiting Values(TA = 25 °C, unless otherwise specified)

Symbol	Parameter	Conditions	value	Unit
P _{PP}	Peak Pulse Power	t _P = 8/20 μs	150	W
T _L	Maximum lead temperature	for soldering during 10s	260	°C
T _J	Operating Temperature Range	-	-40 to +125	°C
T _{stg}	Storage Temperature Range	-	-40 to +125	°C

Electrical Parameters (Ta=25°C)

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
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	mA	v	μA	v	mA	Ω	$10^{-4}/^{\circ}C$	pF
PESD3V3L4UG	3.3	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. $V_{BR}=\alpha T \cdot (T_{amb}-25^{\circ}C) \cdot V_{BR}(25^{\circ}C)$

Typical Characteristics

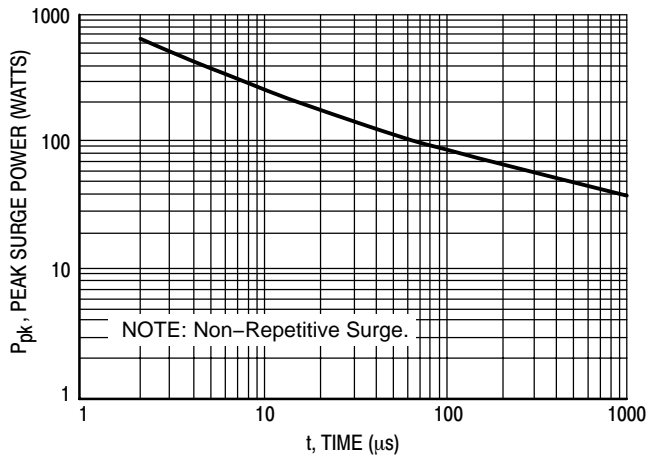


Fig.1 Pulse Width

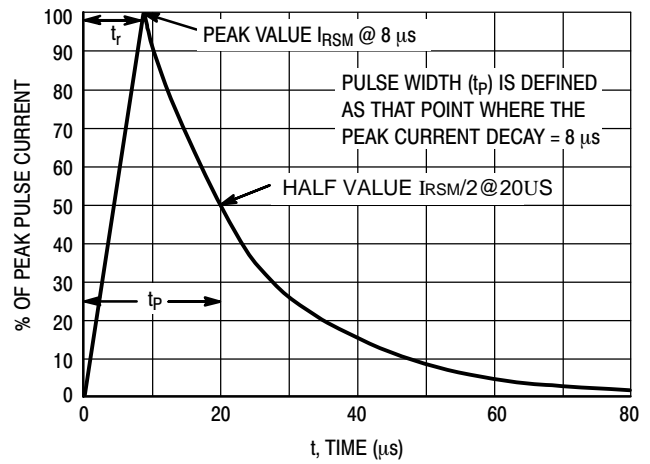


Fig.2 8 x 20 s Pulse Waveform

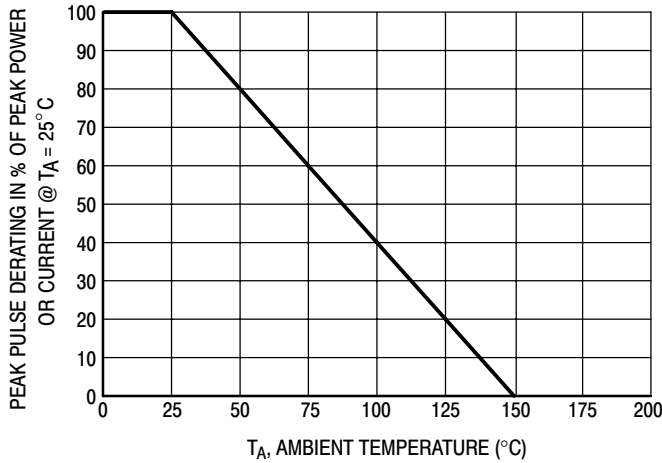


Fig.3 Pulse Derating Curve

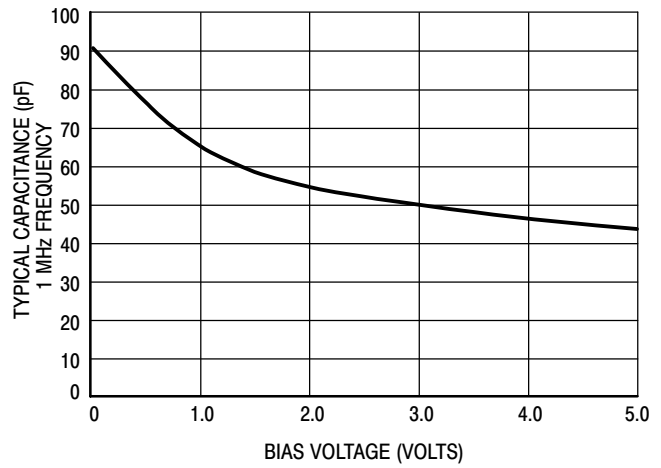


Fig. 4 Capacitance

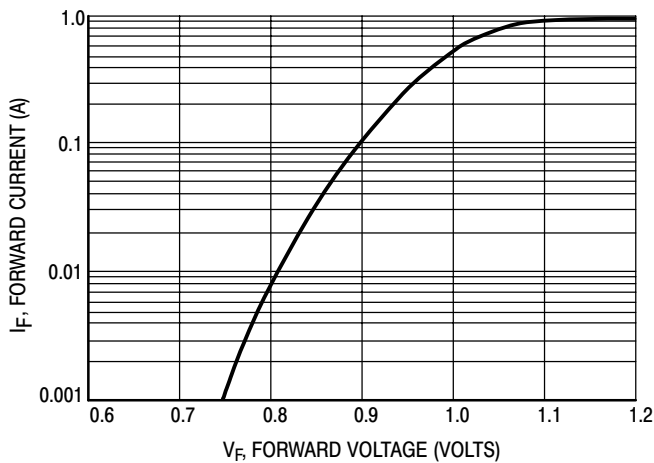


Fig.5 Forward Voltage

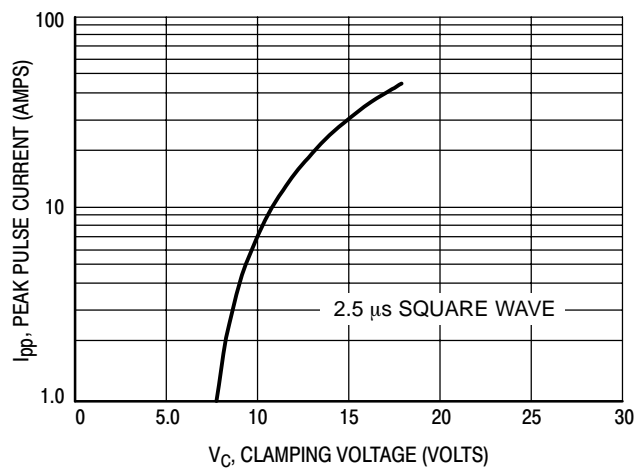


Fig 6: Clamping Voltage versus Peak Pulse Current (Reverse Direction)

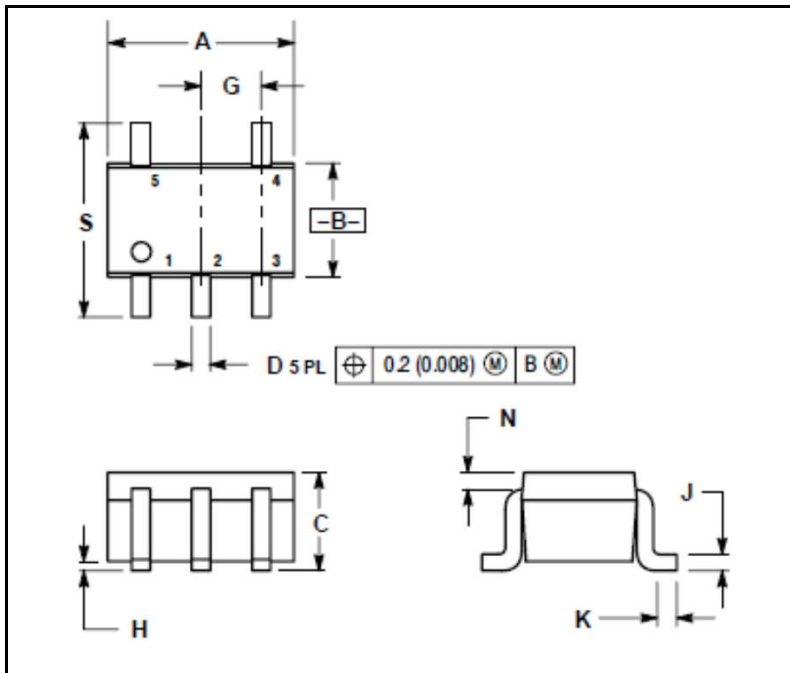
Ordering information

Package	Packing Description	Packing Quantity
SOT-353(SC-88A)	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

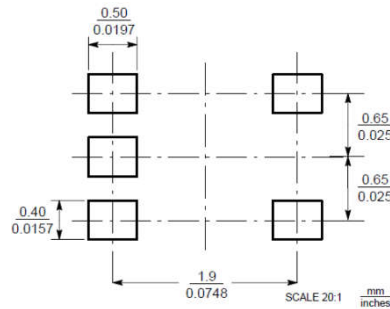
Package Dimensions

SOT-353(SC-88A)

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	1.80	2.20	0.071	0.087
B	1.15	1.35	0.045	0.053
C	0.80	1.10	0.031	0.043
D	0.10	0.30	0.004	0.012
G	0.65 BSC		0.026 BSC	
H	-	0.10	-	0.004
J	0.10	0.25	0.004	0.010
K	0.10	0.30	0.004	0.012
N	0.20 REF		0.008 REF	
S	2.00	2.20	0.079	0.087



The recommended mounting pad size



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