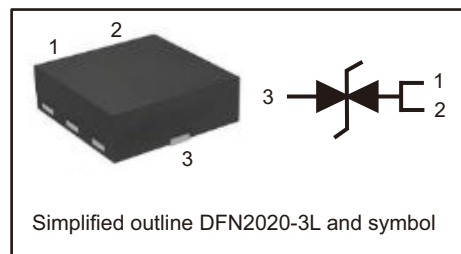


Transient Voltage Suppressors for ESD Protection

Features

- Low Clamping Voltage
- Working voltage:4.5V
- Low Leakage
- 3600 Watts peak pulse power (tp=8/20us)

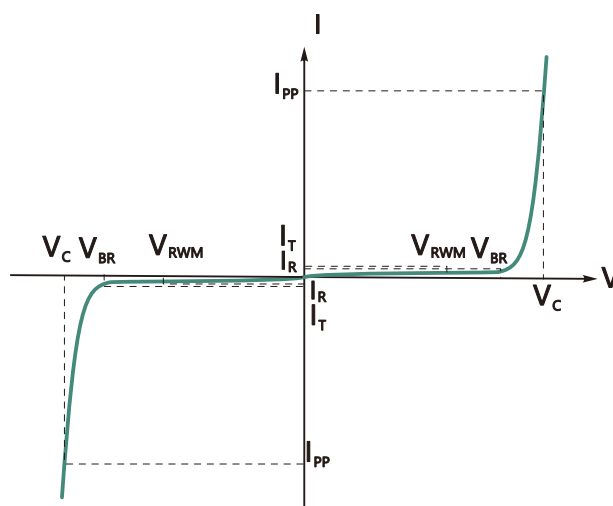


End Equipment

- Power lines
- Personal digital assistants (PDA's)
- Microprocessors based equipment
- Notebooks, Desktops, and Servers
- Cell phone Handsets and Accessories
- Portable Electronics
- Peripheral

Electronics Parameter

Parameter	Symbol
Maximum Reverse Peak Pulse Current	I_{PP}
Clamping Voltage @ I_{PP}	V_C
Peak Reverse Working Voltage	V_{RWM}
Reverse Leakage Current @ V_{RWM}	I_R
Breakdown Voltage @ I_T	V_{BR}
Test Current	I_T





Absolute Maximum Ratings And Characteristics (Ta = 25 °C)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20uS)	P _{pk}	3600	W
Peak Pulse Current	I _{pp}	300	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V _{ESD}	±30 ±30	KV
Operating Temperature Range	T _J	-40 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse stand-off Voltage	V _{RWM}				4.5	V
Breakdown Voltage	V _{BR}	I _T =1mA	4.8		6.0	V
Reverse Leakage Current	I _R	V _R =4.5V, Ta=25°C		10	100	nA
Clamping Voltage	V _C	I _{pp} =100A, t _p =8/20us		7	8	V
		I _{pp} =300A, t _p =8/20us		10	12	V
Junction Capacitance	C _j	V _R =0V, f=1MHz		300	400	pF



Typical Characteristics

Fig.1 Pulse Waveform

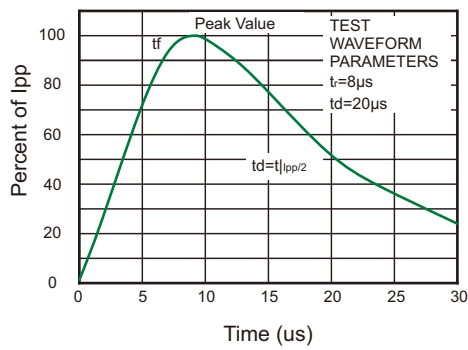


Fig.2 Contact discharge current waveform per IEC61000-4-2

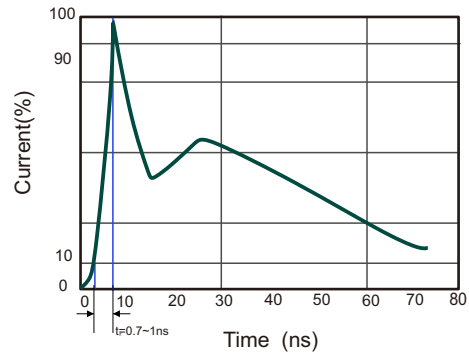
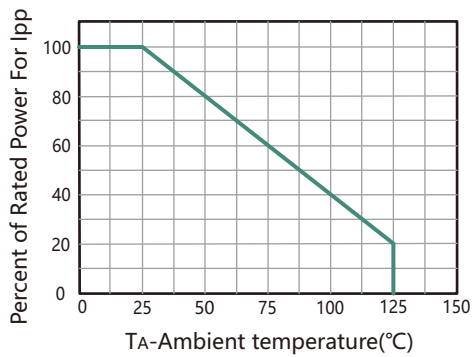
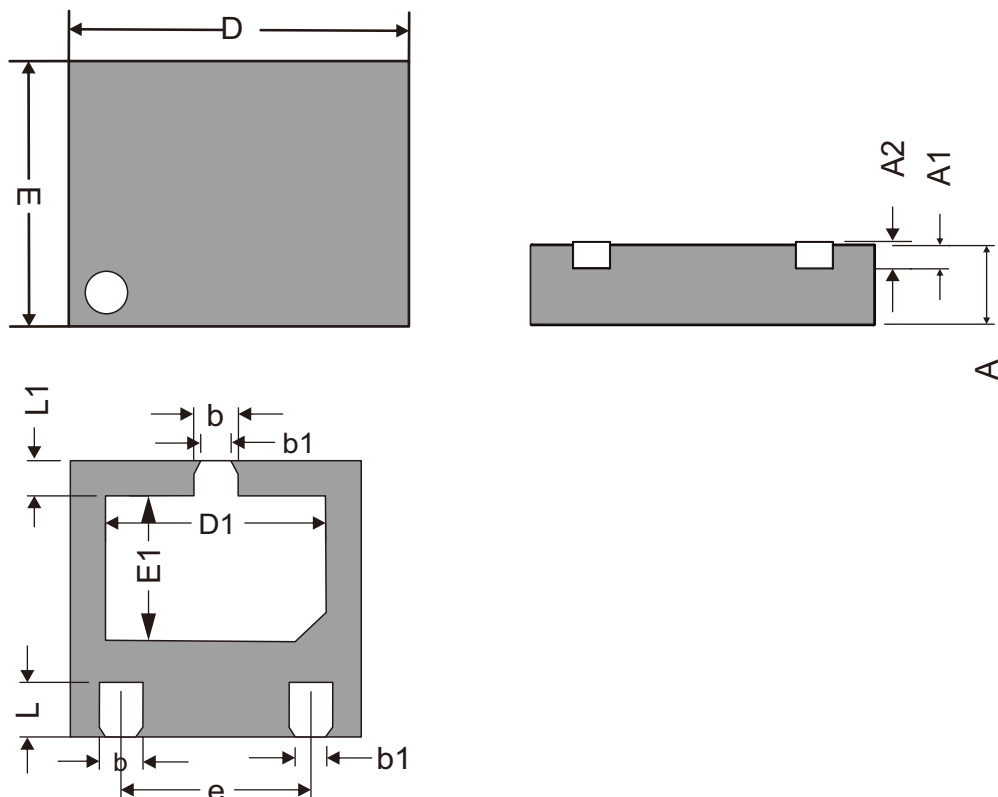


Fig.3 Power Derating Curve





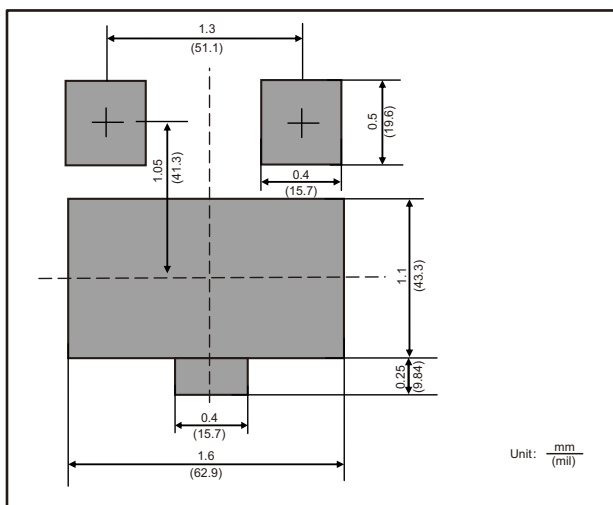
DFN2020-3L Package Outline Dimensions



DFN2020-3L mechanical data

UNIT		A	A1	A2	b	b1	D	D1	E	E1	e	L	L1
mm	min	0.45	\	0.00	0.25	\	1.95	1.45	1.95	1.00	\	0.350	0.20
	typ	0.50	0.15	0.02	0.30	0.22	2.00	1.50	2.00	1.05	1.30	0.400	0.25
	max	0.55	\	0.05	0.35	\	2.05	1.55	2.05	1.10	\	0.450	0.30
mil	min	17.7	\	0.0	9.8	\	76.8	57.1	76.8	39.4	\	13.8	7.9
	typ	19.7	5.9	0.8	11.8	8.7	78.7	59.1	78.7	41.3	51.2	15.7	9.8
	max	21.7	\	2.0	13.8	\	80.7	61.0	80.7	43.3	\	17.7	11.8

The recommended mounting pad size



Marking

Type number	Marking code
ESDB4V5D23LPA	4.5H



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