

ESDB18PP

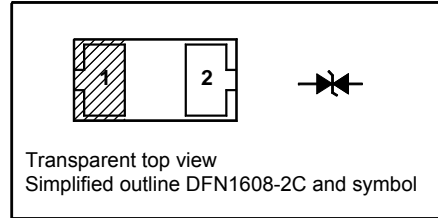
ESD Protection Diode

Features

- Bi-direction high reliability
- Low leakage current

PINNING

PIN	DESCRIPTION
1	Anode
2	Anode



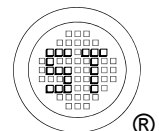
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20 \mu\text{s}$)	P_{PK}	45	W
Peak Pulse Current ($t_p = 8/20 \mu\text{s}$)	I_{PP}	1.8	A
ESD (IEC61000-4-2) Air Contact	V_{ESD}	± 15 ± 8	KV
Operating Junction Temperature Range	T_j	- 55 to + 125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	V_{RWM}	-	-	15	V
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$	$V_{(BR)R}$	17.1	-	18.9	V
Reverse Current at $V_{RWM} = 15 \text{ V}$	I_R	-	-	100	nA
Clamping Voltage at $I_{PP} = 1 \text{ A}$, $t_p = 8/20 \mu\text{s}$ at $I_{PP} = 1.8 \text{ A}$, $t_p = 8/20 \mu\text{s}$	V_C	-	-	25 26.5	V
ESD Clamping Voltage at $I_{TLP} = 4 \text{ A}$, $t_p = 0.2/100 \text{ ns}$ at $I_{TLP} = 16 \text{ A}$, $t_p = 0.2/100 \text{ ns}$	V_{CL}	-	23.6 55.2	-	V
Junction Capacitance at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$	C_j	-	10	-	pF
Dynamic Resistance ¹⁾	R_{dyn}	-	2.6	-	Ω

¹⁾ Dynamic Resistance calculated from $I_{TLP} = 4 \text{ A}$ to $I_{TLP} = 16 \text{ A}$.



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Electrical Characteristic Curves

Fig 1. Pulse Waveform

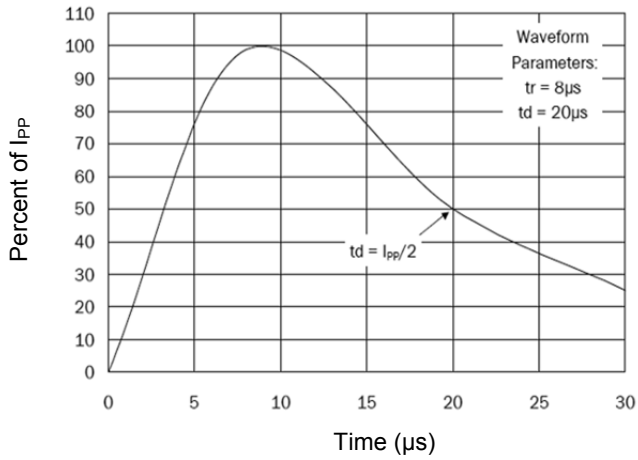


Fig 2. Power Derating Curve

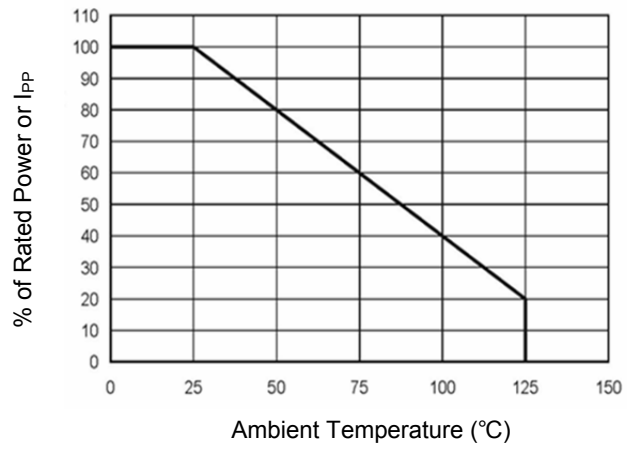


Fig 3. Clamping Voltage Curve

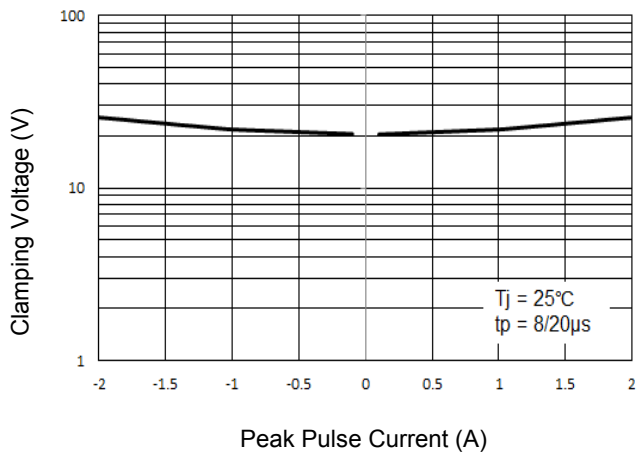


Fig 4. Junction Capacitance

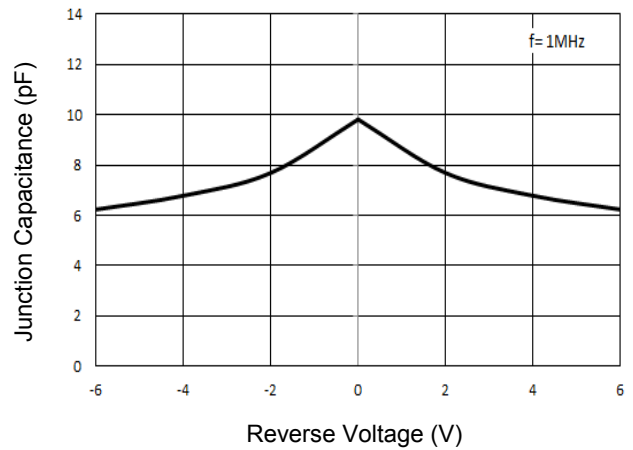
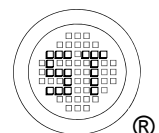
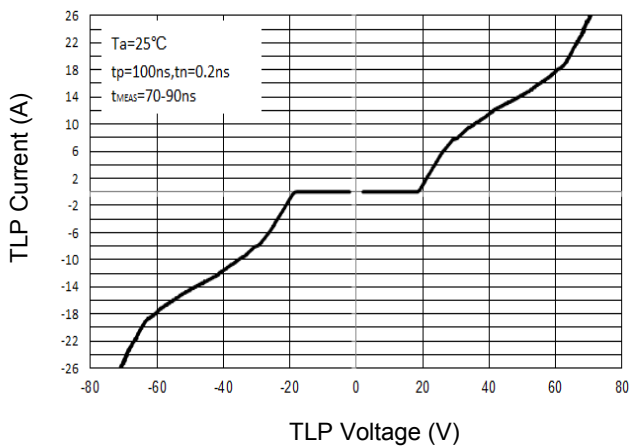


Fig 5. TLP Curve

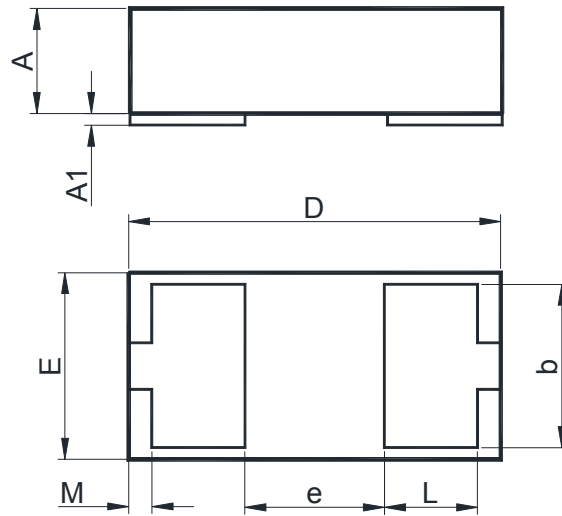


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PACKAGE OUTLINE

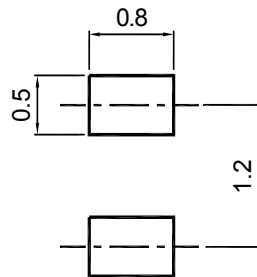
Plastic surface mounted package; 2 leads

DFN1608-2C



UNIT	A	A1	b	D	E	e	L	M
mm	0.55	0.05	0.75	1.65	0.85	0.77	0.45	0.10
	0.45	0	0.65	1.55	0.75	0.68	0.25	0.07

Recommended Soldering Footprint



Packing information

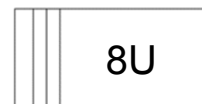
Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
DFN1608-2C	8	4 ± 0.1	0.157 ± 0.004	178	7	4,000

Marking information

" 8U " = Part No.

" III " = Marking Line

Font type: Arial



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