

# E18MBPC1A

## ESD Protection Diode

### Features

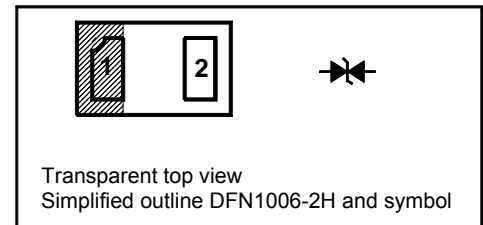
- High capacitance
- Low leakage current

### Applications

- Cellular Handsets & Accessories
- Notebooks & Handhelds
- Digital Cameras

### PINNING

PIN	DESCRIPTION
1	Anode
2	Anode



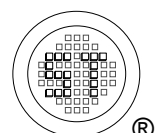
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Peak Pulse Power ( $t_p = 8/20 \mu\text{s}$ )	$P_{PK}$	250	W
Peak Pulse Current ( $t_p = 8/20 \mu\text{s}$ )	$I_{PP}$	6.5	A
IEC61000-4-2 (ESD) Air Contact	$V_{ESD}$	$\pm 30$ $\pm 30$	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	$V_{RWM}$	-	-	18	V
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$	$V_{(BR)R}$	19.5	-	-	V
Reverse Current at $V_{RWM} = 18 \text{ V}$	$I_R$	-	-	0.5	$\mu\text{A}$
Clamping Voltage at $I_{PP} = 6.5 \text{ A}$ , $t_p = 8/20 \mu\text{s}$	$V_C$	-	-	38	V
ESD Clamping Voltage at $I_{TLP} = 4 \text{ A}$ , $t_p = 0.2/100 \text{ ns}$ at $I_{TLP} = 16 \text{ A}$ , $t_p = 0.2/100 \text{ ns}$	$V_{CL}$	- -	28.3 31.2	- -	V
Junction Capacitance at $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$	$C_j$	-	26	30	pF
Dynamic Resistance <sup>1)</sup>	$R_{dyn}$	-	0.24	-	$\Omega$

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



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## Electrical Characteristics Curves

Fig 1. Pulse Waveform

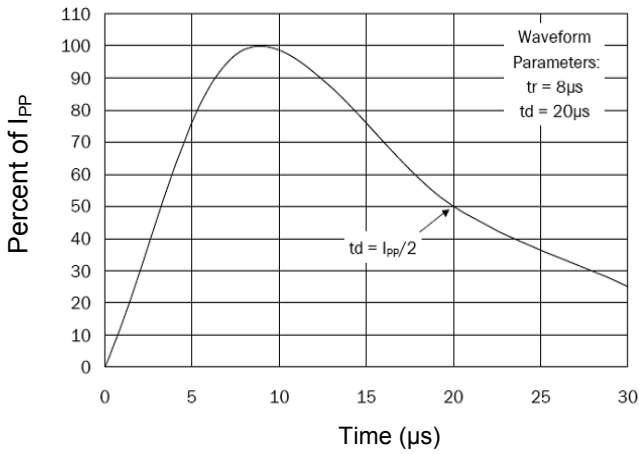


Fig 2. Power Derating Curve

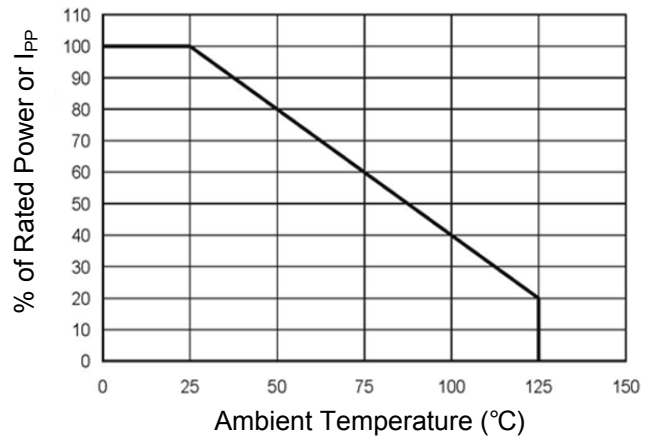


Fig 3. Clamping Voltage Curve

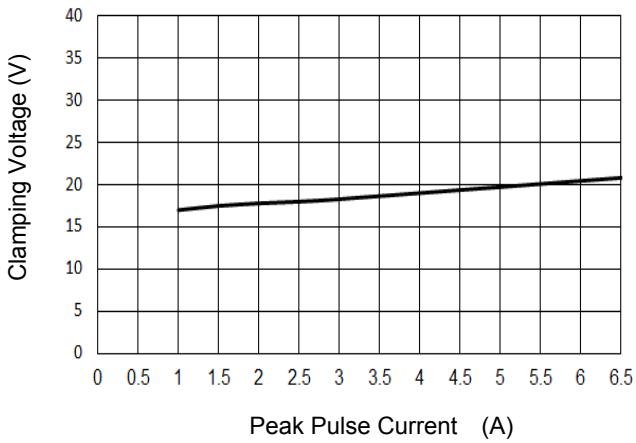


Fig 4. Junction Capacitance

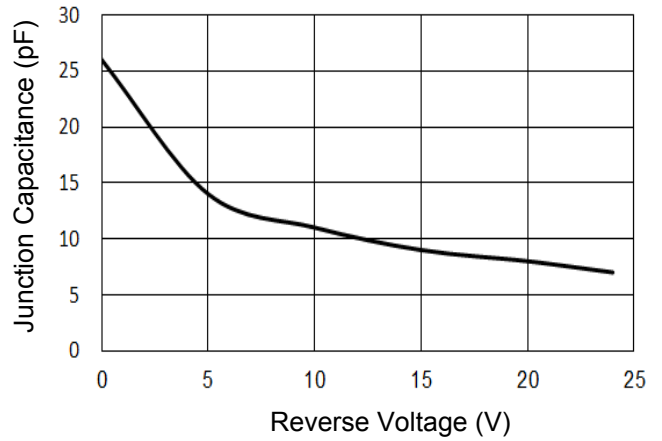
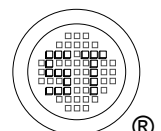
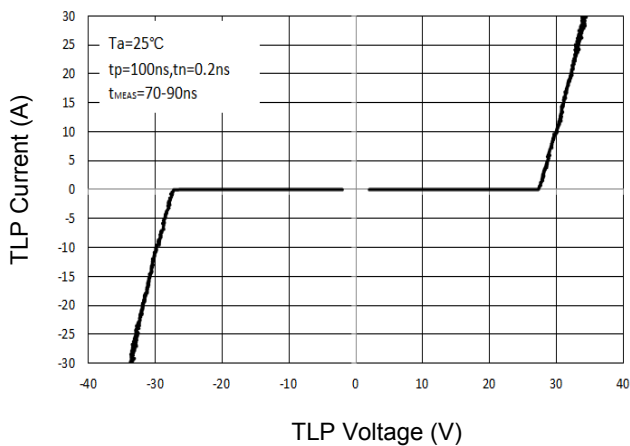


Fig. 5 TLP Curve

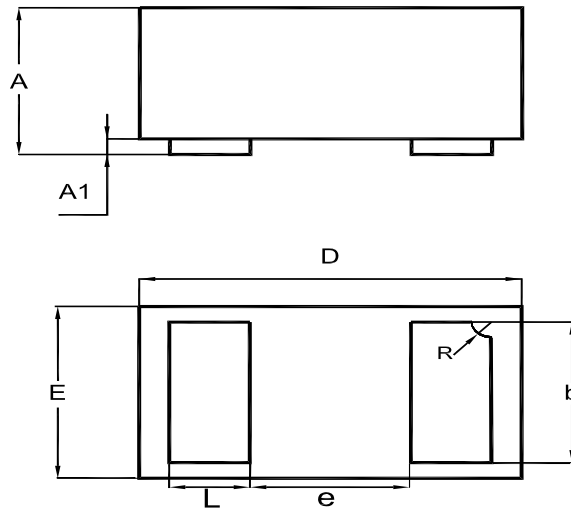


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## PACKAGE OUTLINE

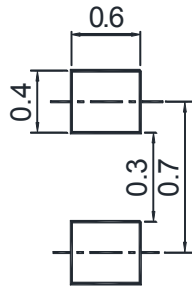
Plastic surface mounted package

DFN1006-2H



UNIT	A	A1	b	D	E	e	L	R
mm	0.51 0.46	0.05 0	0.55 0.45	1.05 0.95	0.65 0.55	0.4	0.3 0.2	0.15 0.05

## Recommended Soldering Footprint



## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
DFN1006-2H	8	2 ± 0.1	0.079 ± 0.004	178	7	10,000

## Marking information

" 2W " = Part No.

Font type: Arial

