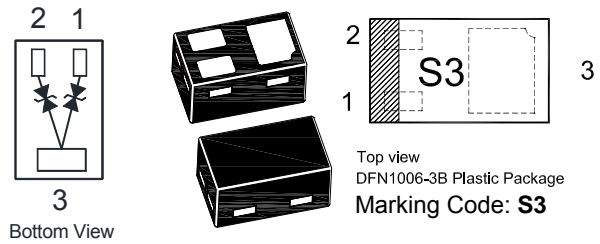


ESDB5V0ABP-HAF

Transient Voltage Suppressors

Features

- Low leakage current
- Low clamping voltage
- Halogen and Antimony Free(HAF),
RoHS compliant



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

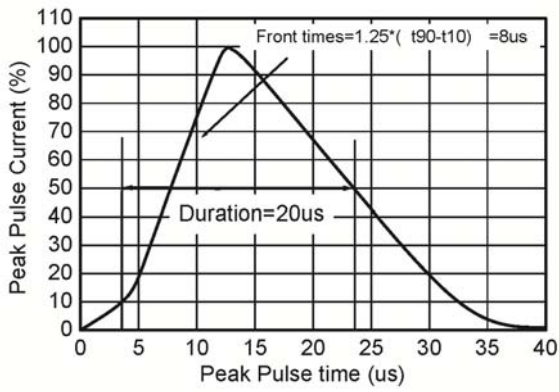
Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20 \mu\text{s}$)	P_{PK}	63	W
Peak Pulse Current ($t_p = 8/20 \mu\text{s}$)	I_{PP}	6.5	A
IEC61000-4-2 (ESD) Air Contact	V_{PP}	± 30 ± 30	KV
Operating Temperature Range	T_{opr}	- 40 to + 85	$^\circ\text{C}$
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

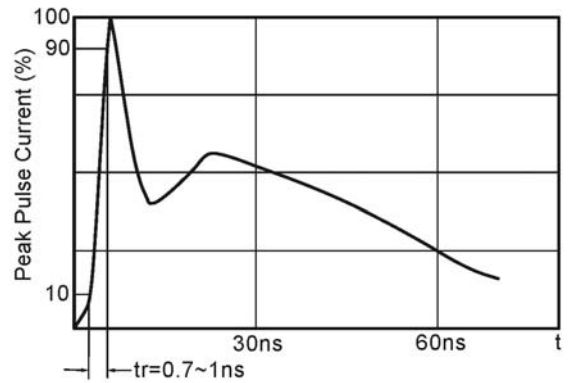
Parameter	Symbol	Min.	Max.	Unit
Reverse Maximum Working Voltage	V_{RWM}	-	5	V
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$	$V_{(BR)R}$	5.8	8.1	V
Reverse Current at $V_{RWM} = 1.8 \text{ V}$ at $V_{RWM} = 5 \text{ V}$	I_R	- -	20 1	nA μA
Clamping Voltage at $I_{PP} = 1 \text{ A}$, $t_p = 8/20 \mu\text{s}$ at $I_{PP} = 6.5 \text{ A}$, $t_p = 8/20 \mu\text{s}$	V_C	- -	6 9.7	V
Junction Capacitance at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$	C_j	-	30	pF

TOP DYNAMIC

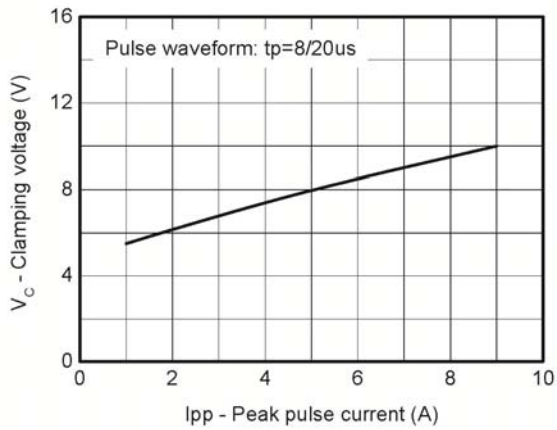
ESDB5V0ABP-HAF



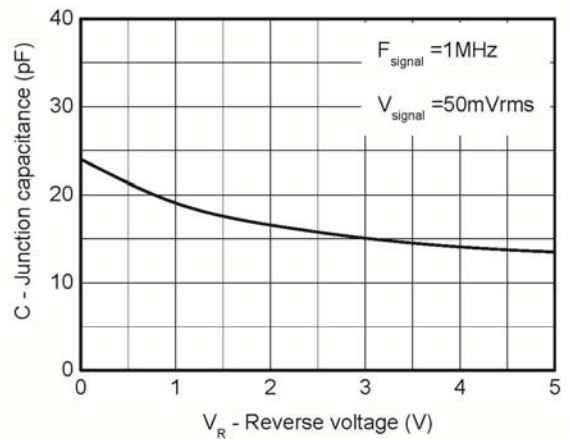
8/20us waveform



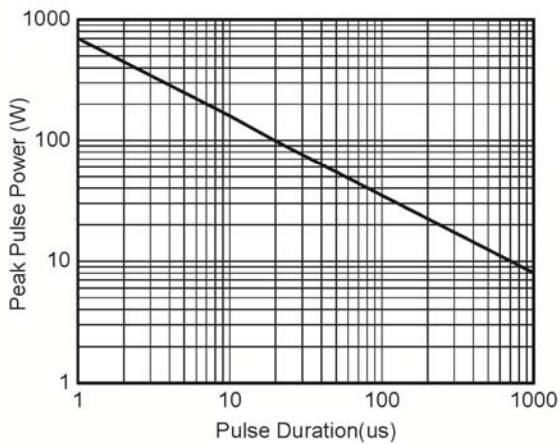
IEC61000-4-2 waveform



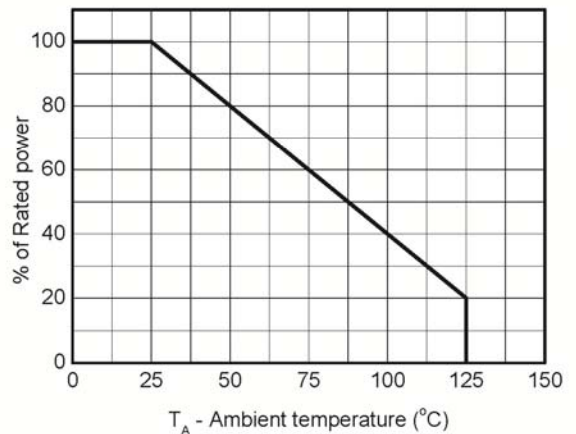
Clamping voltage vs. Peak pulse current



Capacitance vs. Reverse voltage



Non-Repetitive Peak Pulse Power vs. Pulse time



Power derating vs. Temperature

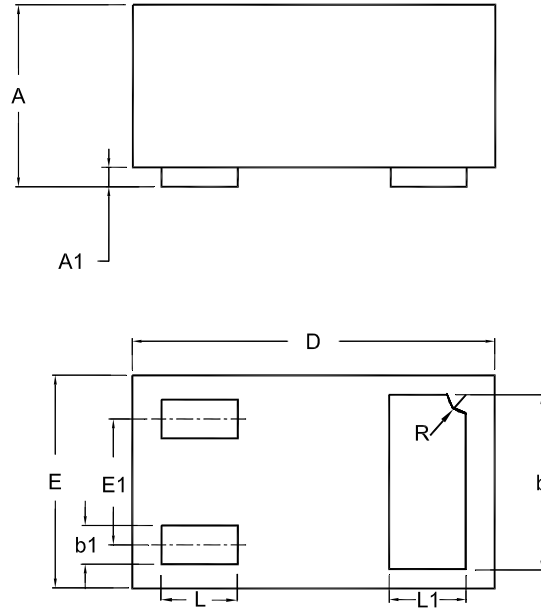
TOP DYNAMIC

ESDB5V0ABP-HAF

PACKAGE OUTLINE

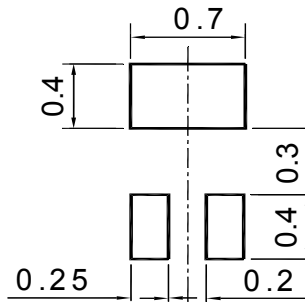
Plastic surface mounted package

DFN1006-3B



UNIT	A	A1	b	b1	D	E	E1	L	L1	R
mm	0.40	0.05	0.55	0.2	1.05	0.65	0.325	0.3	0.3	0.15
	0.36	0	0.45	0.1	0.95	0.55		0.2	0.2	0.05

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
DFN1006-3B	8	4 ± 0.1	0.157 ± 0.004	178	7	5,000

TOP DYNAMIC