

DESCRIPTION

The SE10F10B3.3MA is Bi-directional transient voltage suppressor (TVS) to protect sensitive electronic components from electrostatic discharge (ESD). It is particularly-suited for cellular phones, PMP, MID, PDA, digital cameras and other electronic equipments.

The SE10F10B3.3MA is safely dissipating ESD strikes to meet the ESD immunity testing of IEC61000-4-2.

The SE10F10B3.3MA is available in a DFN1006 package with Pb-free.

FEATURES

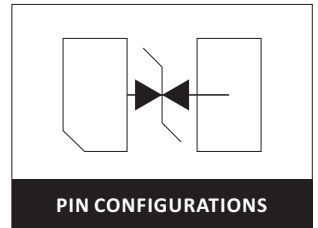
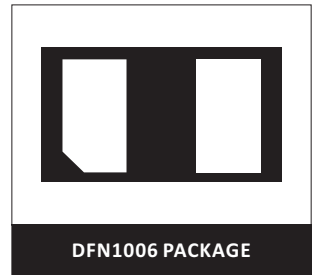
- > 100 Watts Peak Pulse Power per Line (tp=8/20μs)
- > Protects one signal line or I/O port
- > Working voltages: 3.3 V
- > Ultra Low leakage current

APPLICATIONS

- > Cell Phone Handsets and Accessories
- > Microprocessor based equipment
- > Personal Digital Assistants (PDA's)
- > Notebooks, Desktops, and Servers
- > Portable Instrumentation
- > Peripherals
- > Pagers

IEC COMPATIBILITY

- > IEC61000-4-2 (ESD) ±30kv (air), ±30kv (contact)
- > IEC61000-4-4 (EFT) 40A (5/50ns)



MAXIMUM RATINGS AND CHARACTERISTICS Ratings at 25°C ambient temperature unless otherwise specified.

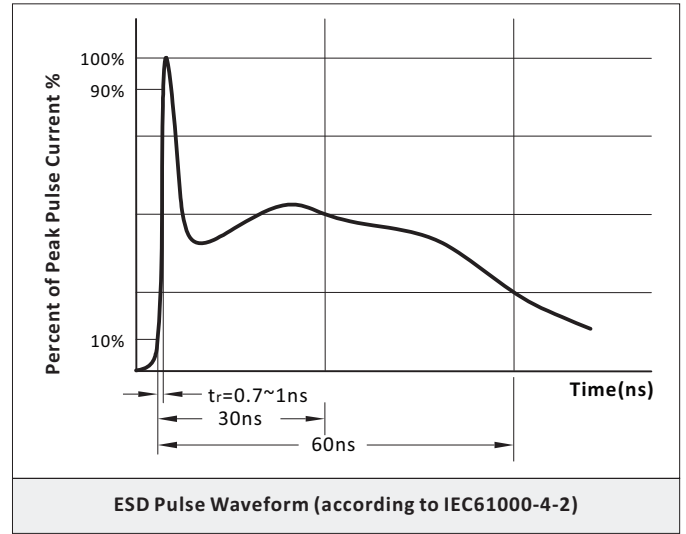
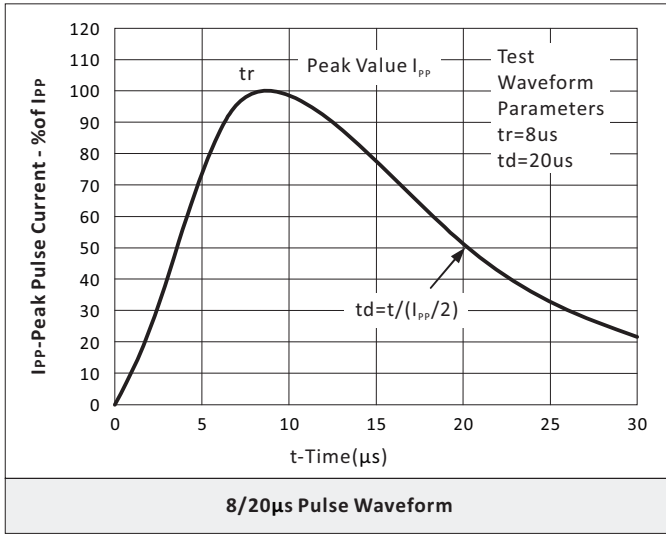
RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp=8/20us waveform).	P _{PPM}	100	Watts
Operating Temperature Range.	T _J	-55~+125	°C
Storage Temperature Range.	T _{STG}	-55~+150	°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

ELECTRICAL CHARACTERISTICS @25°C unless otherwise specified.

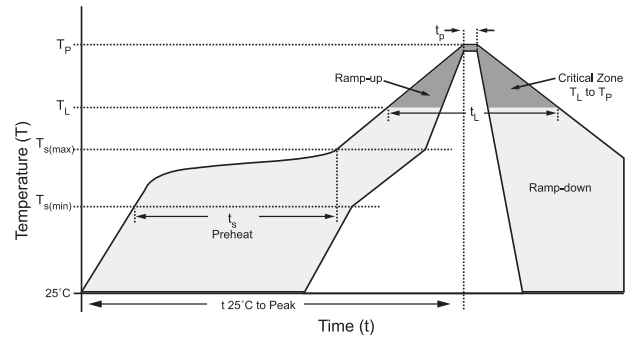
Part Number	Device Marking Code	Reverse Stand-off Voltage Max. V _{RWM} (V)	Breakdown Voltage Min. V _{BR} (V)	Test Current I _T (mA)	Peak Pulse Current Max.@1A V _C (V)	Peak Pulse Current V _C (V) Max. @A	Junction Capacitance Typ. C _J (PF)	Reverse Leakage Max. IR(uA)
SE10F10B3.3MA	3BL	3.3	4.0	1	12.0	21 4	1	1

CHARACTERISTIC CURVES



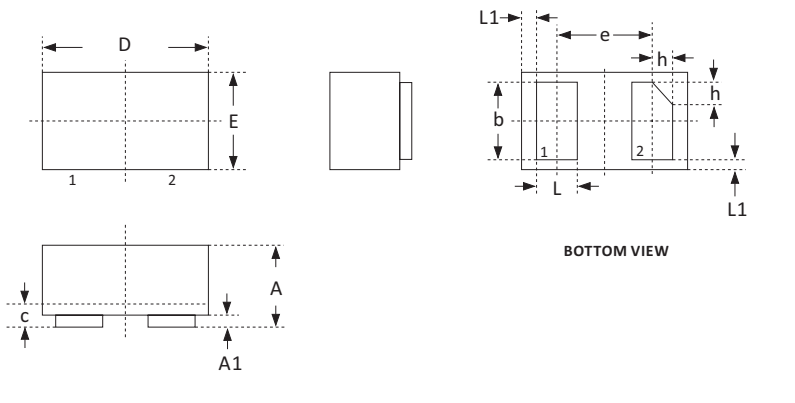
REFLOW PROFILE

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Min (T _s (min))	150°C
	Temperature Max (T _s (max))	200°C
	Time (min to max) (t _s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T _L) to peak)		3°C/second max
T _s (max) to T _L - Ramp-up Rate		3°C/second max
Reflow	Temperature (T _L) (Liquidus)	217°C
	Time (min to max) (t _L)	60 – 150 seconds
Peak Temperature (T _P)		260°C
Time within 5°C of actual peak Temperature (t _p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T _P)		8 minutes Max.
Do not exceed		260°C



DFN1006 PACKAGE DIMENSIONS

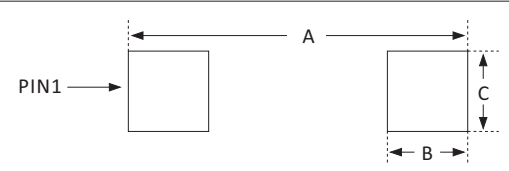
OUTLINE DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.45	0.55	0.018	0.022
A1	0	0.05	0	0.002
b	0.40	0.60	0.016	0.024
c	0.12	0.18	0.005	0.007
D	0.95	1.05	0.037	0.041
e	0.65TYP		0.026TYP	
E	0.55	0.65	0.022	0.026
L	0.15	0.35	0.006	0.014
L1	0.05REF		0.002TYP	
h	0.07	0.17	0.003	0.007



The diagram illustrates the DFN1006 package dimensions. It includes a top view showing dimensions D (width), E (length), and L (lead length). A side view shows dimensions A (height) and A1 (standoff height). A bottom view shows dimensions L1 (lead width), e (pitch), h (lead thickness), and b (lead width). The package is labeled with '1' and '2' on the top and bottom views.

RECOMMENDED PAD LAYOUT DIMENSIONS

DIM	MILLIMETERS	INCHES
A	1.20	0.047
B	0.47	0.019
C	0.60	0.024



The diagram shows the recommended pad layout dimensions. It includes a top view showing dimensions A (width), B (length), and C (height). A side view shows dimensions A (height) and A1 (standoff height). The package is labeled with 'PIN1' on the top view.

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SE10F10B3.3MA	DFN1006	10000PCS	7"



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