

DESCRIPTION

The SE10F10B5.0MA is Bi-directional transient voltage suppressors (TVS) to protect sensitive electronic components from electrostatic discharge (ESD). It is particularly well-suited for cellular phones, PMP, MID, PDA, digital cameras and other electronic equipments.

The SE10F10B5.0MA is safely dissipating ESD strikes to meet the ESD immunity testing of IEC61000-4-2.

The SE10F10B5.0MA is available in a DFN1006 package with Pb-free.

FEATURES

- > 100 Watts Peak Pulse Power per Line ($t_p=8/20\mu s$)
- > Protects one bidirectional I/O line
- > Working voltages : 5.0 V
- > Low leakage current
- > Low clamping voltage

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) $\pm 25kV$ (air), $\pm 15kV$ (contact)
- > IEC61000-4-4 (EFT) 40A (5/50ns)

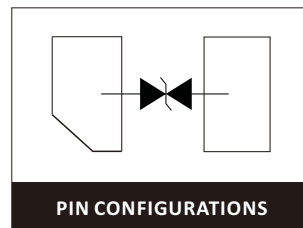
MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

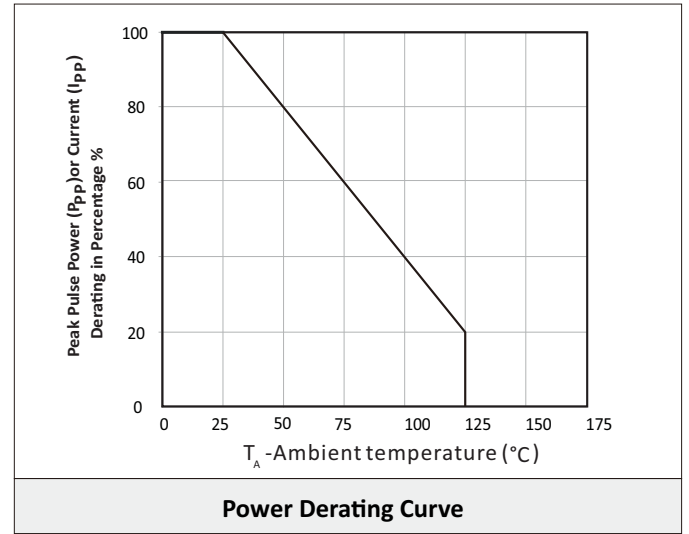
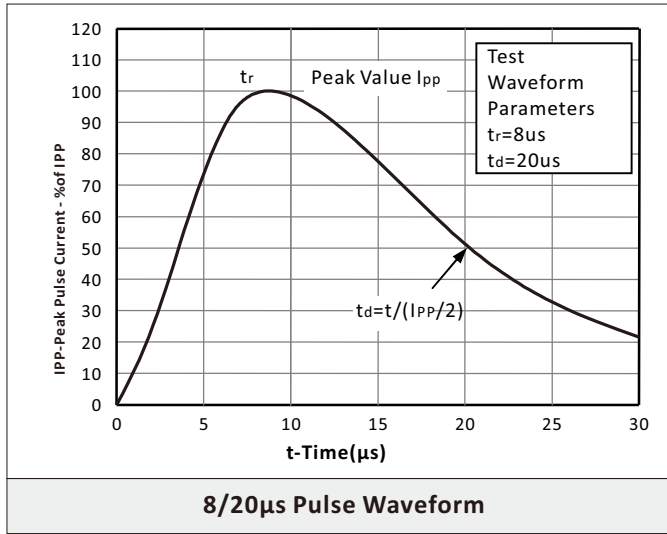
RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power ($t_p=8/20\mu s$ waveform).	P _{PPM}	100	Watts
Operating Temperature Range.	T _J	-55~+125	°C
Storage Temperature Range.	T _{STG}	-55~+150	°C
Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.			

ELECTRICAL CHARACTERISTICS

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 _T (PF)	Reverse Leakage Max. I _R (μA)
SE10F10B5.0MA	H5	5.00	6.00	1	15	30 3	0.3	1

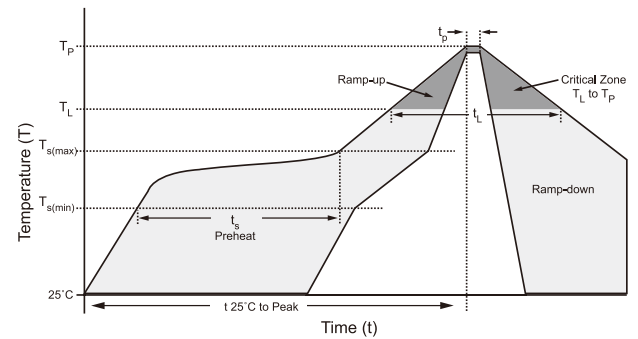


PRODUCT DIMENSIONS



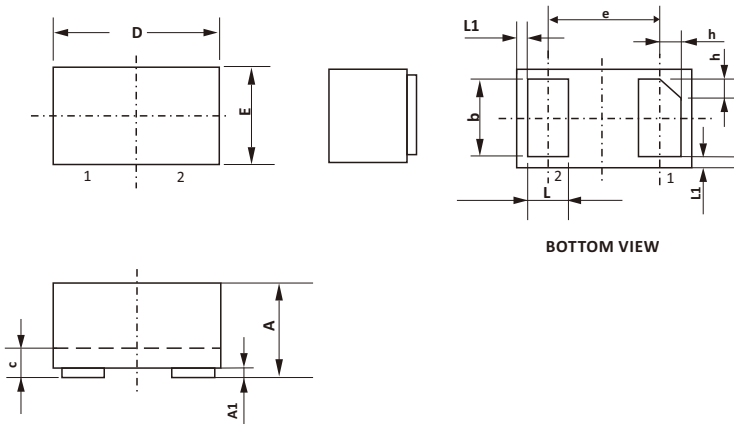
REFLOW PROFILE

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



DFN1006 PACKAGE DIMENSIONS

OUTLINEDIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.40	0.50	0.016	0.020
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		0.002REF	
h	0.07	0.17	0.003	0.007



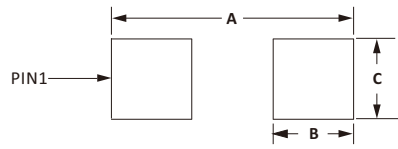
Technical drawings of a component showing top, side, and bottom views with dimension lines and labels.

Top View: Shows dimensions D (width), E (height), and L (length). The component is divided into two sections labeled 1 and 2.

Side View: Shows dimensions A (total height) and A1 (height of the base).

Bottom View: Shows dimensions L1 (width), L2 (length), and L (length). The component is divided into two sections labeled 1 and 2.

RECOMMENDED PAD LAYOUT DIMENSIONS

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

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SE10F10B5.0MA	DFN1006	12000PCS	7"



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