SE06F10B3.3A

Electrostatic Discharge Protection Device

FEATURES

- 80W Peak Pulse Power per Line (tp=8/20μs)
- Protects One bidirectional I/O line
- Working voltages : 3.3 V
- Low leakage current
- Low clamping voltage

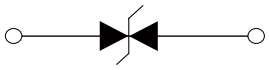
APPLICATIONS

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA'S)
- Notebooks,Desktops,and Servers
- Portable Instrumentation
- Peripherals
- I^2C Bus Protection

DFN0603

A3

Marking



Schematic Symbol

IEC COMPATIBILITY

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

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

THERMAL CONSIDERATIONS

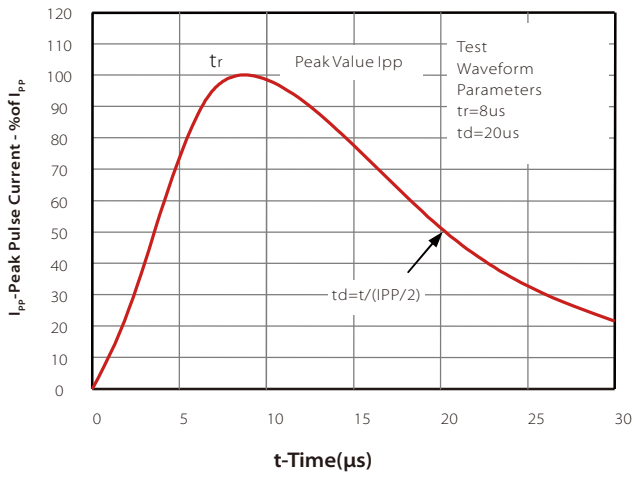
Symbol	Parameter	Value	Unit
P_{PP}	Peak Pulse Power (tp=8/20μs waveform)	80	Watts
T_J	Operating Temperature Range	-55 to +125	℃
T_{STG}	Storage Temperature Range	-55 to +150	℃

ELECTRICAL CHARACTERISTICS

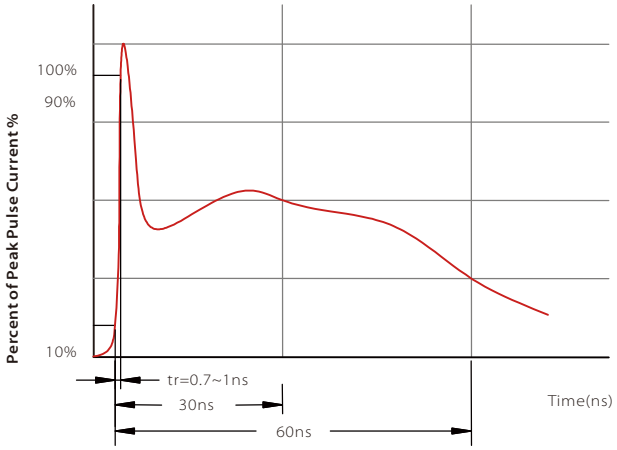
Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
V_{RWM}	Reverse Stand-off Voltage				3.3	V
V_{BR}	Reverse Breakdowm Voltage	I_T=1mA	3.5			V
I_R	Reverse Leakage Current	V_{RWM}=3.3V			1	μA
V_C	Clamping Voltage (Tp=8/20us)	I_{PP}=1A,tp=8/20us			6.5	V
V_C	Clamping Voltage (Tp=8/20us)	I_{PP}=9A,tp=8/20us			10	V
I_{PP}	Peark Pulse Current(Tp=8/20us)	tp=8/20us			9	A
C_J	Off State Junction Capacitance	V_R=0V, f=1MHz		15		pF

CHARACTERISTIC CURVES

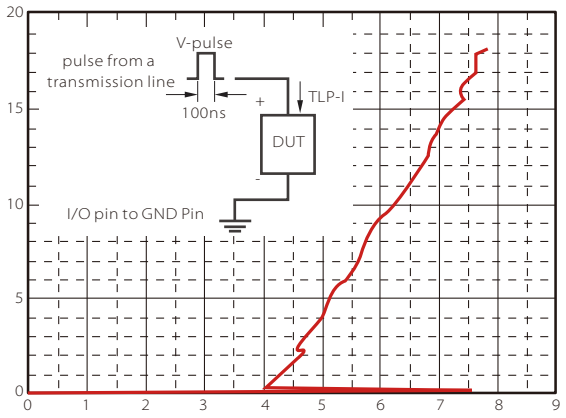
8/20μs Pulse Waveform



ESD Pulse Waveform (according to IEC 61000-4-2)

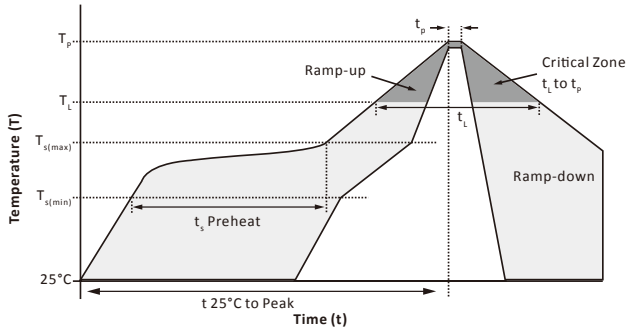


Transmission Line Pulsing (TLP) M easurement

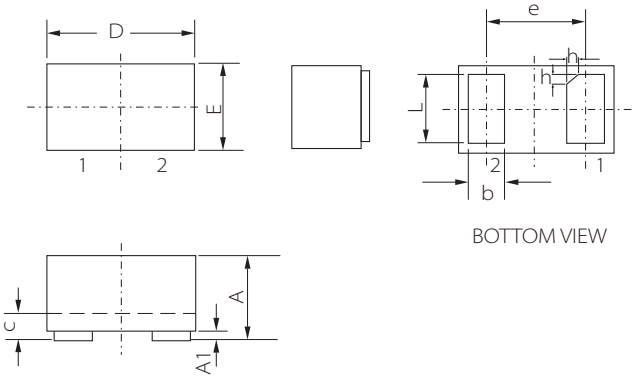


SOLDERING PARAMETERS

Reflow Condition		Lead–free assembly
Pre Heat	Temperature Max ($T_{s(min)}$)	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

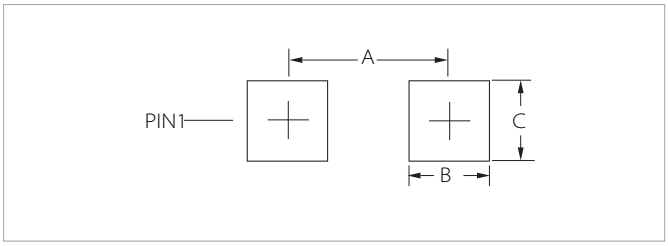


DFN0603 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.28	0.34	0.011	0.014
A1	0	0.05	0	0.002
b	0.13	0.24	0.005	0.009
c	0.05	0.15	0.002	0.006
D	0.55	0.65	0.022	0.026
e	0.35BSC		0.014BSC	
E	0.25	0.35	0.010	0.014
L	0.20	0.30	0.008	0.012
h	0	0.10	0	0.004

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters	Inches
A	0.38	0.015
B	0.23	0.009
C	0.30	0.012

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SE06F10B3.3A	DFN0603	10000PCS	7″

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