

FEATURES

- | 55W Peak Pulse Power per Line (tp=8/20μs)
- | Package optimized for high-speed lines
- | Protects one data, control line
- | Snap back featured
- | Working voltages : 3.3 V
- | Low leakage current
- | Low clamping voltage

APPLICATIONS

- | USB 3.x
- | MHL 2.0
- | SATA/SAS
- | PCI Express
- | RF Antenna



DFN1006



Marking

IEC COMPATIBILITY

- | IEC61000-4-2 (ESD) ±30kV (air), ±18kV (contact)
- | IEC61000-4-4 (EFT) 40A (5/50ns)

APPROVALS

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



Schematic Symbol

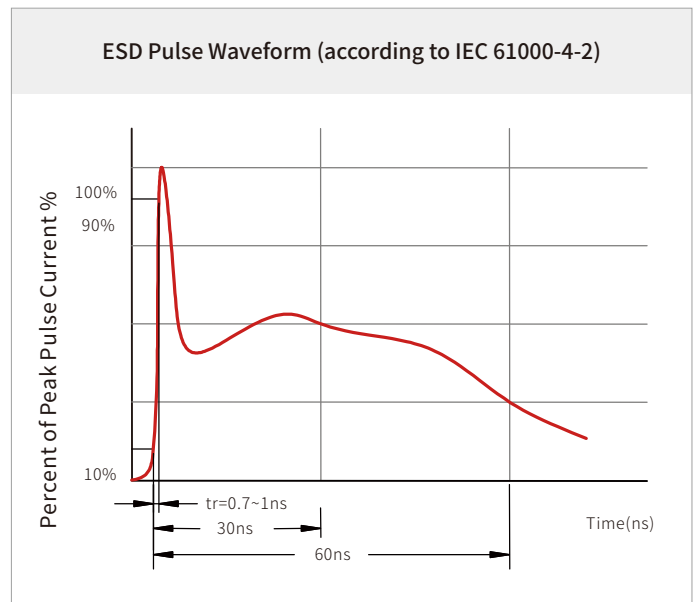
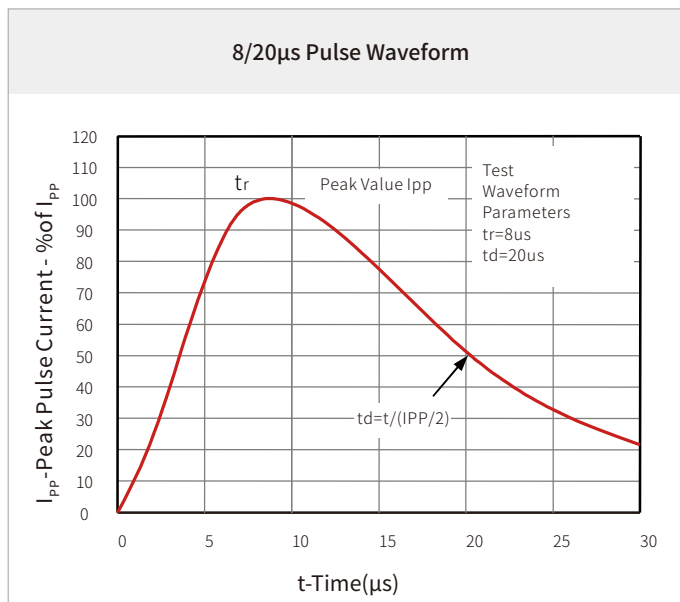
THERMAL CONSIDERATIONS

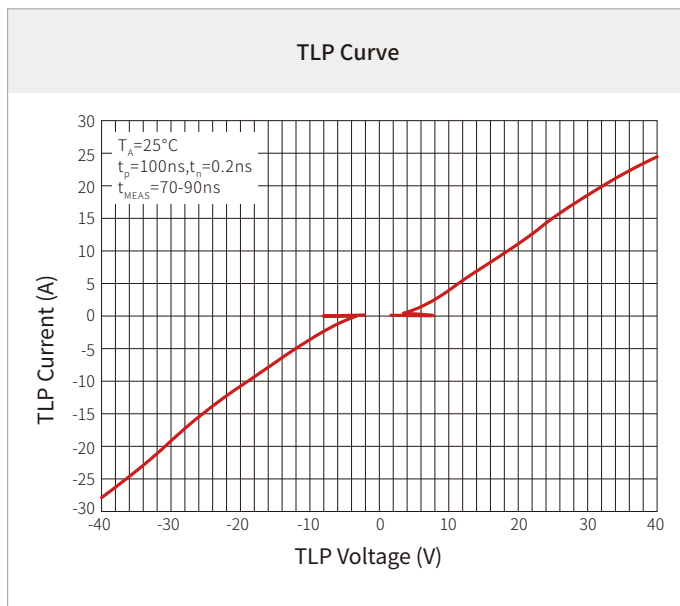
Symbol	Parameter	Value	Unit
P _{pp}	Peak Pulse Power (tp=8/20μs waveform)	55	Watts
T _J	Operating Temperature Range	-55 to +125	°C
T _{STG}	Storage Temperature Range	-55 to +150	°C

ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
V_{RWM}	Reverse Stand-off Voltage				3.3	V
V_{BR}	Reverse Breakdown Voltage	$I_T=1mA$	5.5			V
V_H	Reverse Holding Voltage	I/O Pin to GND		2.05		V
I_H	Holding Reverse Current	I/O Pin to GND		28		mA
I_R	Reverse Leakage Current	$V_{RWM}=3.3V$			100	nA
V_C	Clamping Voltage	$I_{PP}=4A, tp=8/20\mu s$			14.5	V
V_{CTLP}	TLP Clamping Voltage	$I_{PP}=8A$ IEC61000-4-2 Level 2 equivalent ($\pm 4kV$ Contact, $\pm 8kV$ Air)		12		V
V_{CTLP}	TLP Clamping Voltage	$I_{PP}=16A$ IEC61000-4-2 Level 4 equivalent ($\pm 8kV$ Contact, $\pm 16kV$ Air)		21		V
R_{DYN}	Dynamic resistance	$tp=100ns$		1.1		Ω
I_{PP}	Peak Pulse Current	$tp=8/20\mu s$			4	A
C_J	Off State Junction Capacitance	$V_R=0V, f=1MHz$		0.18	0.30	pF

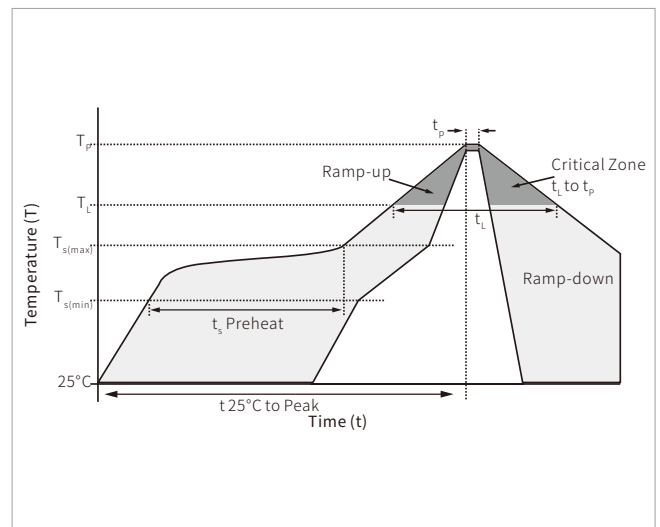
CHARACTERISTIC CURVES



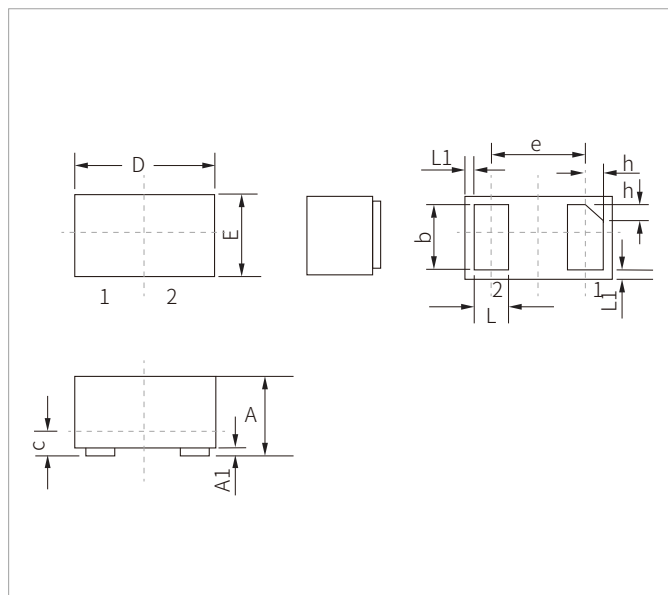


SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(\text{min})}$)	150°C
	Temperature Max ($T_{s(\text{max})}$)	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
$T_{s(\text{max})}$ 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

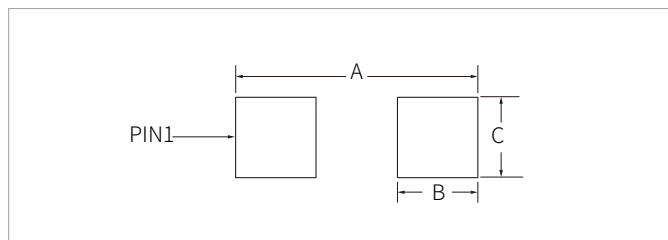


DFN1006 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.40	0.60	0.016	0.024
A1	0	0.05	0	0.002
b	0.40	0.55	0.016	0.022
c	0.12	0.18	0.005	0.007
D	0.90	1.10	0.035	0.043
e	0.65BSC		0.026BSC	
E	0.55	0.75	0.022	0.030
L	0.20	0.35	0.008	0.014
L1	0.05REF		0.002REF	
h	0.07	0.17	0.003	0.007

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	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
SE10F06B3.3UA-SP	DFN1006	10000PCS	7"

Headquarters

No.3387 Shendu Road
Pujiang I&E Park
Minhang Shanghai China
201000

Hotline

400-021-5756

Web

<https://www.semiware.com>

Sales Center

Tel: 86-21-3463-7458
Email: sales18@semiware.com

Customer Service

Tel: 86-21-5484-1001
Email: sales17@semiware.com

Technical Support

Tel: 86-21-3463-7654
Email: fae01@semiware.com

Complaint & Suggestions

Tel: 86-21-3463-7172
Ext: 8868
Email: cs03@semiware.com

By QR Code

Website



Wechat

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