

## FEATURES

- | Standard zener breakdown voltage
- | Steady state power rating of 200mW
- | Low leakage current



DFN1006

## APPLICATION

- | LCD TV back light protection
- | Hand held portables
- | High density PC boards



Marking



Schematic Symbol

## APPROVALS

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

## MAXIMUM RATINGS ( $T_A=25^{\circ}\text{C}$ )

Parameter	Symbol	Value	Unit
Total Device Dissipation FR-5 Board	$P_D$	200	mW
Operating Temperature	$T_{OPT}$	-55 to 150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55 to 150	$^{\circ}\text{C}$

## MAXIMUM RATINGS (T<sub>A</sub>=25°C )

Parameter		Symbol	Min.	Typ.	Max.	Unit
Reverse Zener Voltage	I <sub>ZT</sub> =2mA	V <sub>Z</sub>	58	62	66	V
Maximum Zener Impedance	I <sub>ZT</sub> =2mA	Z <sub>ZT</sub>			215	Ω
Maximum Zener Impedance	I <sub>ZK</sub> =1mA	Z <sub>ZK</sub>			750	
Reverse Leakage Current	V <sub>R</sub> =43.4V	I <sub>R</sub>			0.05	μA
Forward Voltage	I <sub>F</sub> =10mA	V <sub>F</sub>			1	V

## CHARACTERISTIC CURVES

Fig.1 Power Derating Curve

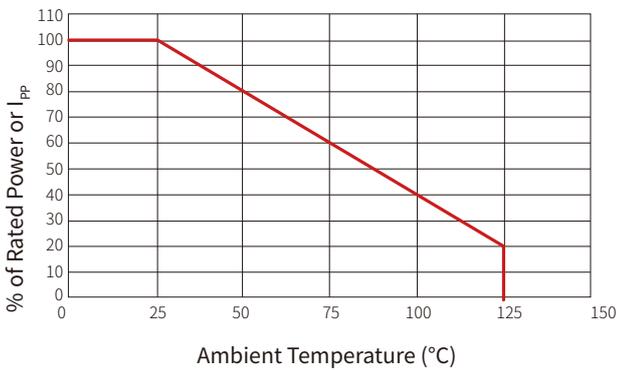
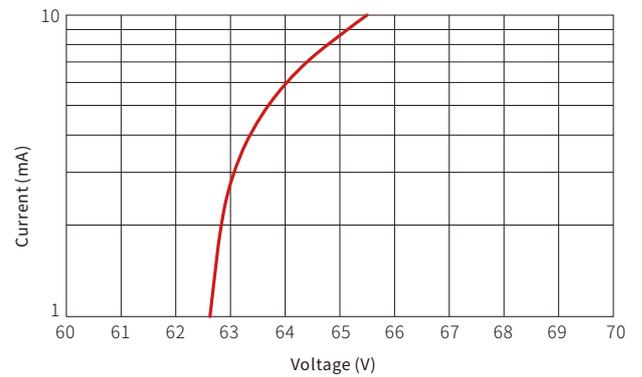
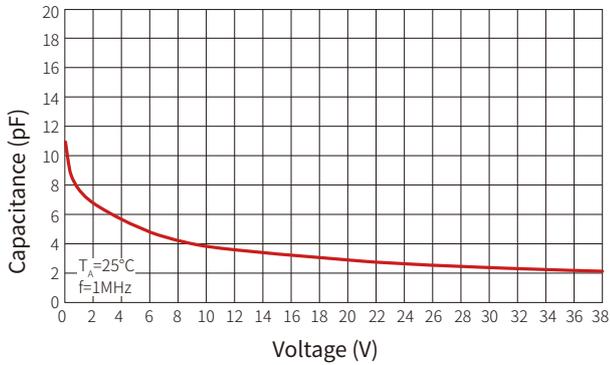
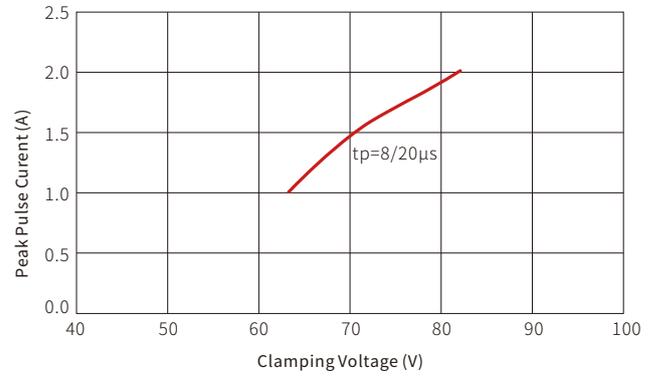


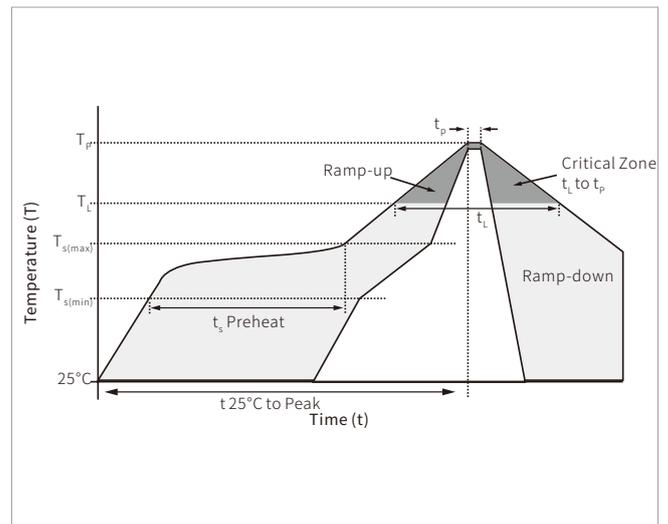
Fig.2 Voltage Sweeping



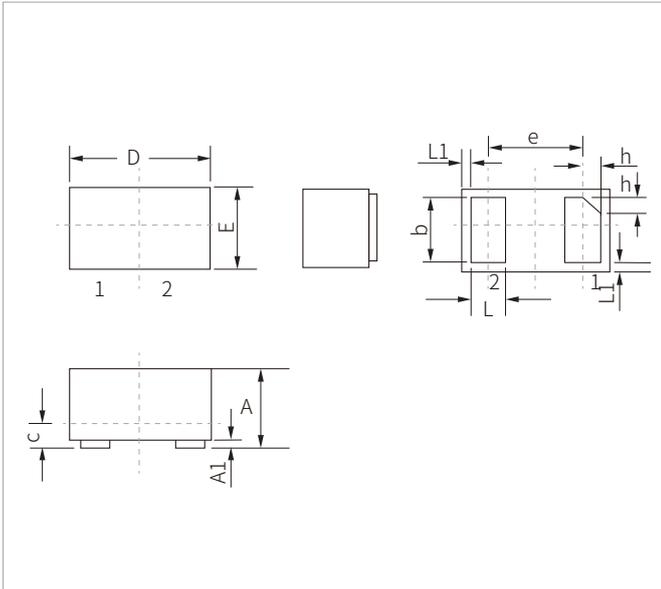
**Fig.3 Voltage vs Capacitance**

**Fig.4 Clamping Voltage vs Peak Pulse Current**


## 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

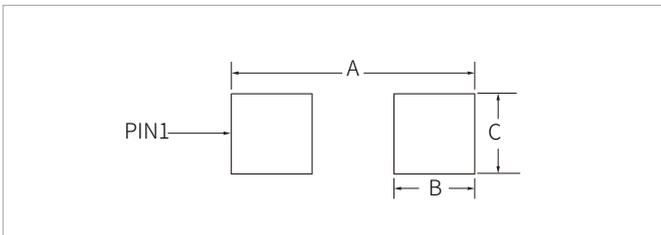


## DFN1006 PACKAGE INFORMATION



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
MM8D62VC-W	DFN1006	10000PCS	7"

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