Features

Ultra low capacitance: 35pF typical
Ultra low leakage: nA level
Low operating voltage: 5V
Low clamping voltage
2-pin leadless package
Complies with following standards:
– IEC 61000-4-2 (ESD) immunity test
Air discharge: ±30kV
Contact discharge: ±30kV
– IEC61000-4-5 (Lightning) 18A (8/20µs)
RoHS Compliant

C

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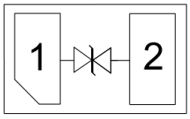


Schematic Diagram

Applications

Cellular Handsets and Accessories
Personal Digital Assistants
Notebooks and Handhelds
Portable Instrumentation
Digital Cameras
Peripherals
Audio Players
Keypads, Side Keys, LCD Displays

Absolute Maximum Rating

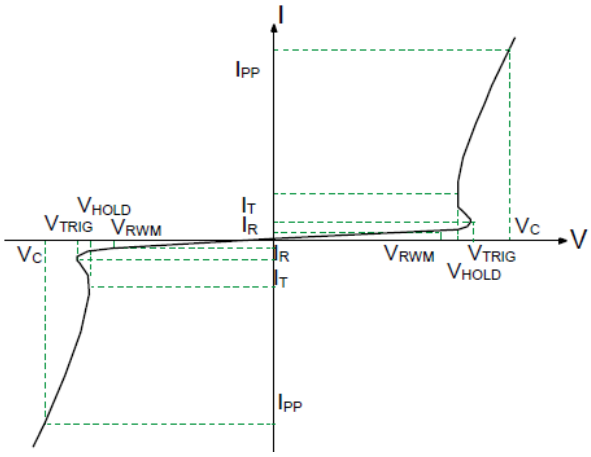
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20µs)	Ppk	200	W
Peak Pulse Current (8/20µs)	IPP	18	A
ESD per IEC 61000−4−2 (Air) ESD per IEC 61000−4−2 (Contact)	VESD	±30 ±30	kV
Operating Temperature Range	TJ	−55 to +125	°C
Storage Temperature Range	Tstg	−55 to +150	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

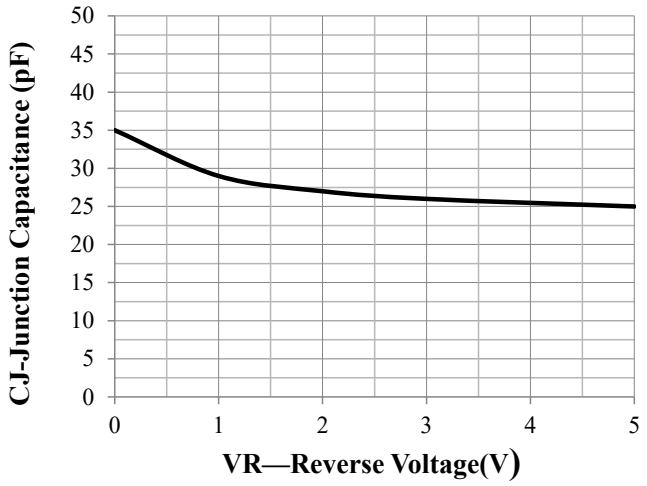
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				5. 0	V
Breakdown Voltage	V_{BR}	I_T = 1mA	6.0	6. 4		V
Reverse Leakage Current	I_R	V_{RWM} = 5.0V		0.05	0.1	µA
Clamping Voltage	V_C	I_{PP} = 1A (8 x 20µs pulse)		7.0	9.0	V
Clamping Voltage	V_C	I_{PP} = 18A (8 x 20µs pulse)		9.0	12	V
Junction Capacitance	C_J	VR = 0V, f = 1MHz		35	55	pF

Portion Electronics Parameter

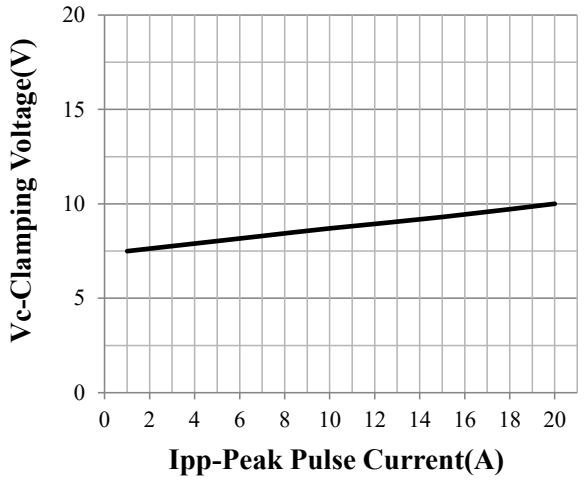
Symbol	Parameter
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
Vc	Clamping Voltage @Ic



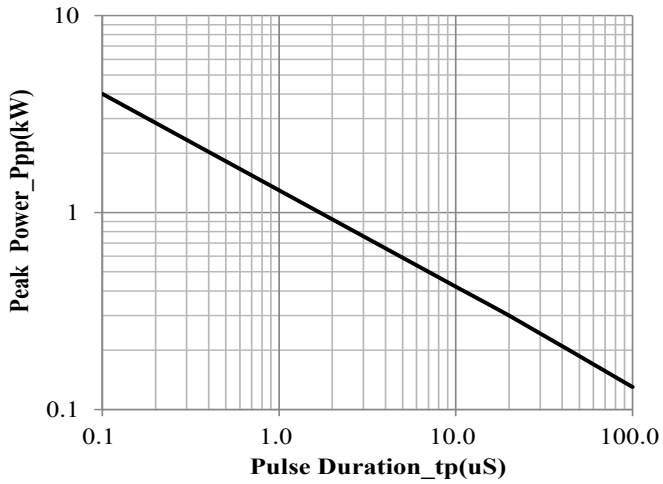
Typical Performance Characteristics (T_A=25°C unless otherwise Specified)



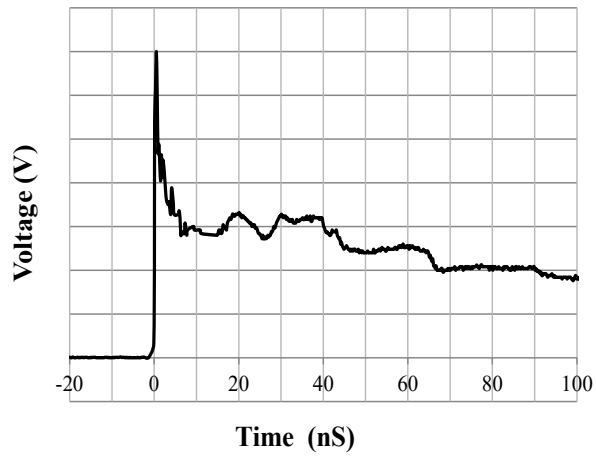
Junction Capacitance vs. Reverse Voltage



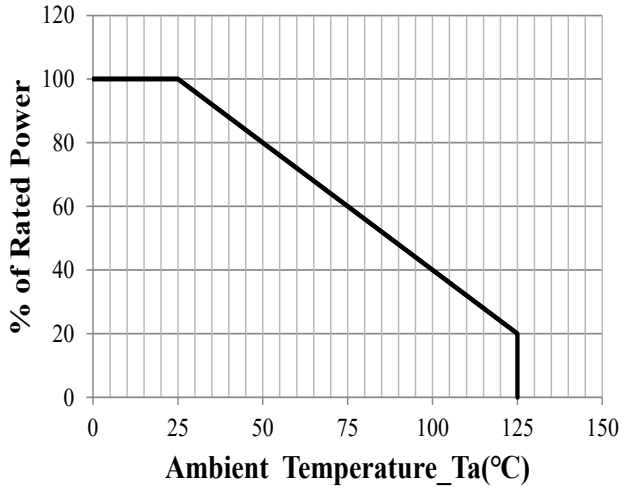
Clamping Voltage vs. Peak Pulse Current



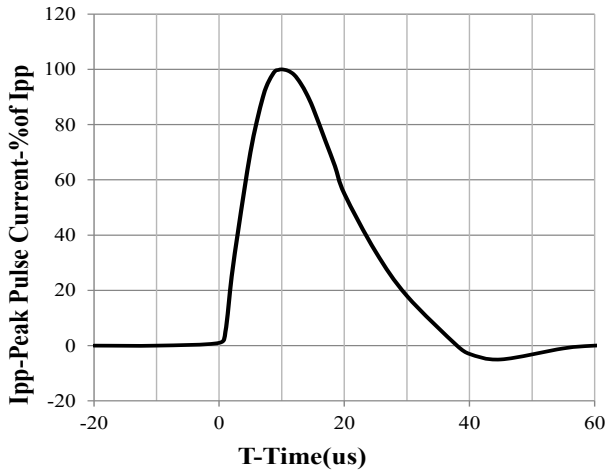
Peak Pulse Power vs. Pulse Time



IEC61000−4−2 Pulse Waveform



Power Derating Curve

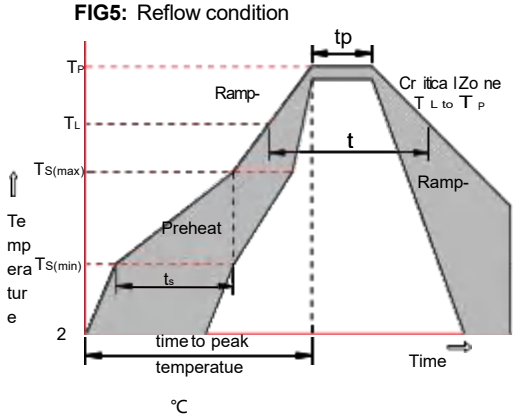


8 X 20us Pulse Waveform

Soldering parameters

Reflow Condition		Pb-Free assembly (see as bellow)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150℃
	-Temperature Max($T_{s(max)}$)	+200℃
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3℃/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3℃/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217℃
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)℃
Time within 5℃ of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6℃/sec. Max
Time 25℃ to Peak Temp (T_P)		8 min. Max
Do not exceed		+260℃

FIG5: Reflow condition



Package Dimensions & Suggested Pad Layout

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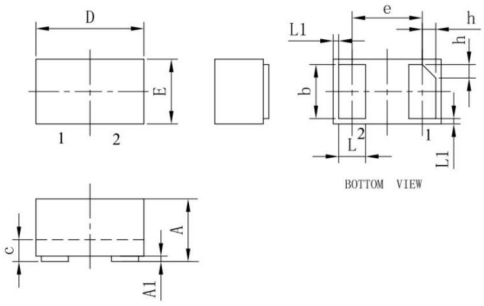
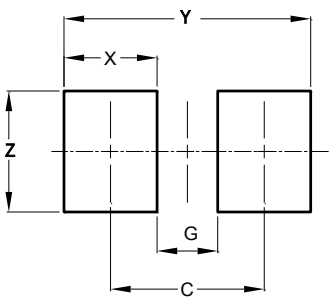




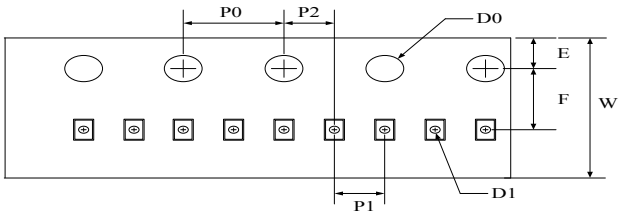
DFN1006-2L

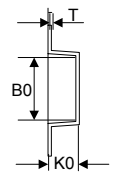
	Millimeters			Inches		
	Min. (mm)	Typ. (mm)	Max. (mm)	Min. (mm)	Typ. (mm)	Max. (mm)
A	0.45	0.50	0.55	0.018	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.45	0.50	0.55	0.018	0.020	0.022
c	0.12	0.15	0.18	0.005	0.006	0.007
D	0.95	1.00	1.05	0.037	0.039	0.041
e	0.59BSC			0.026BSC		
E	0.55	0.60	0.65	0.022	0.024	0.026
L	0.25	0.30	0.35	0.010	0.012	0.013
L1	0.05REF			0.002REF		
h	0.07	0.12	0.17	0.003	0.005	0.007

Dimensions	Value (in mm)
C	0.70
G	0.30
X	0.40
Y	1.10
Z	0.65

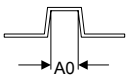
Tape & rell specification

Tape





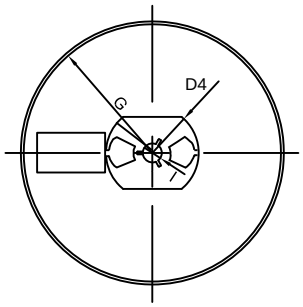
SECTION : B-B

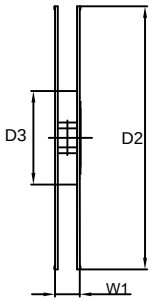


SECTION : A-A

Symbol	Dimension (mm)
P0	4.00±0.20
P1	2.00±0.20
P2	1.55±0.20
D0	1.55±0.20
D1	0.40±0.20
E	1.55±0.25
F	3.60±0.20
W	8.00±0.20
A0	1.00±0.20
B0	1.40±0.20
K0	0.75±0.20
T	0.20±0.20

7” Reel





D2	177.0±5.0
D3	55Min.
D4	R24.6±2.0
G	R82.0±2.0
I	13.0±2.0
W1	10.20±3.0
Quantity: 10000PCS	