RCLAMP3321P-N

ESD Protection Diode

»Features

- 60Watts peak pulse power (tp = 8/20μs)
- Tiny DFN1006 package
- Bidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance (Cj=0.4pF typ. IO to IO)
- Protection one data/power line
- IEC 61000-4-2 ±20kV contact ±20kV air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 3.5A (8/20μs)



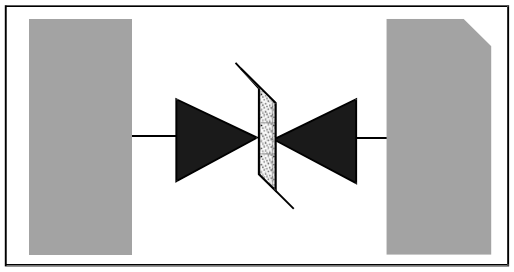
»Applications

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation

»Mechanical Data

- DFN1006 package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

»Schematic & PIN Configuration



DFN1006

»Absolute Maximum Rating

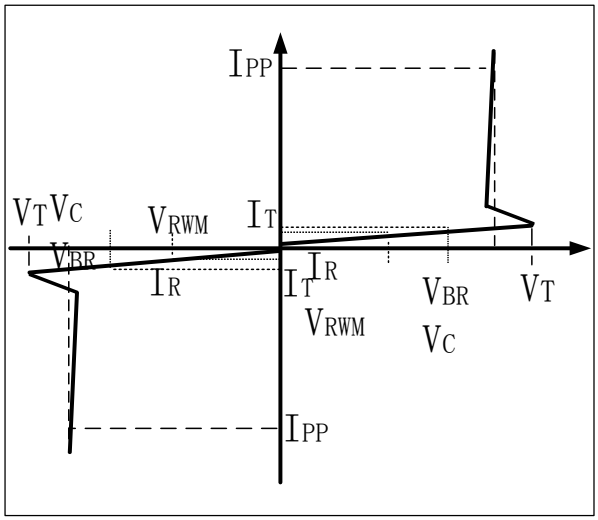
Rating	Symbol	Value	Units
Peak Pulse Power (t_p =8/20μs)	P_{PP}	60	Watts
Peak Pulse Current (t_p =8/20μs)(note1)	I_{pp}	3.5	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	20 20	kV
Lead Soldering Temperature	T_L	260(10seconds)	℃
Junction Temperature	T_J	-55 to + 125	℃
Storage Temperature	T_{stg}	-55 to + 125	℃

»Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				3.3	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	5.0	7.5		V
Reverse Leakage Current	I_R	V_{RWM}=5V,T=25℃		0.1	0.5	μA
Peak Pulse Current	I_{PP}	tp =8/20μs			3.5	A
Clamping Voltage	V_C	IPP=1.0A,tp=8/20μs		8		V
Clamping Voltage	V_C	I_{PP}=3.5A,t_p=8/20μs		15	19	V
Junction Capacitance	C_j	IO to IO V_R = 0V, f = 1MHz		0.4	0.5	pF

»Electrical Parameters (TA = 25°C unless otherwise noted)

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current



Note:. 8/20μs pulsewaveform.

»Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

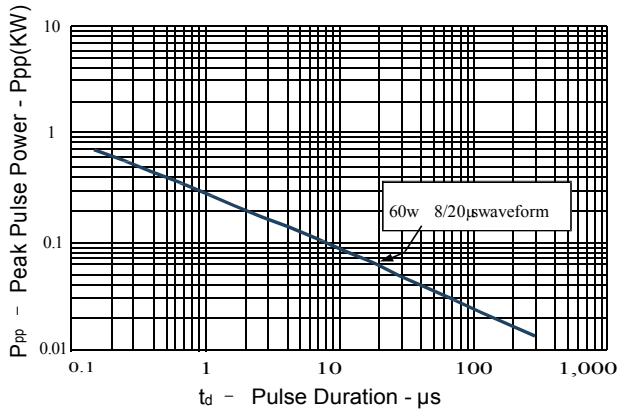


Figure 2: Power Derating Curve

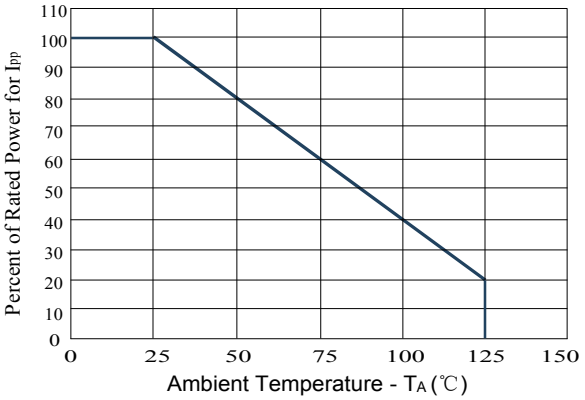


Figure3: Pulse Waveform

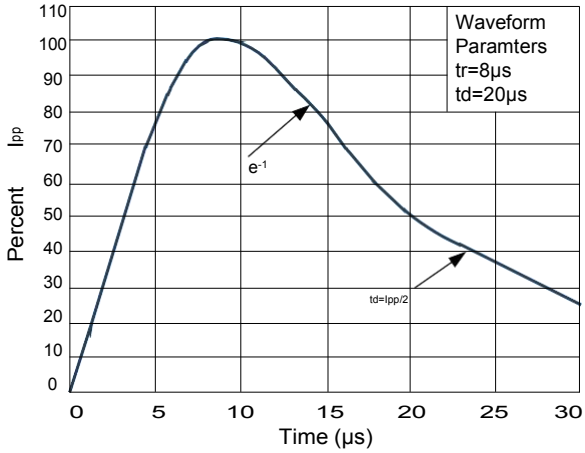


Figure 4: Clamping Voltage vs.Ipp

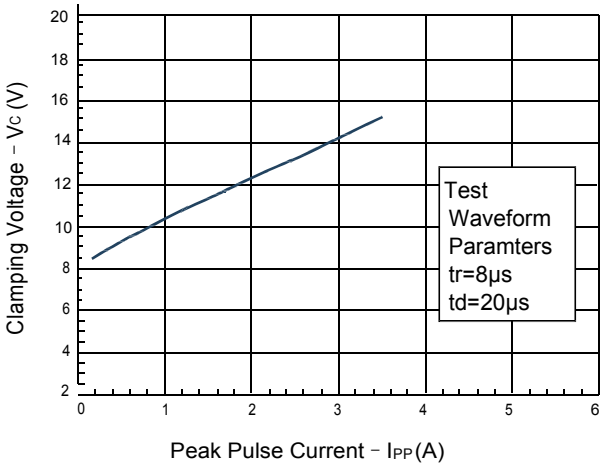


Figure5: Positive Clamping voltage (TLP)

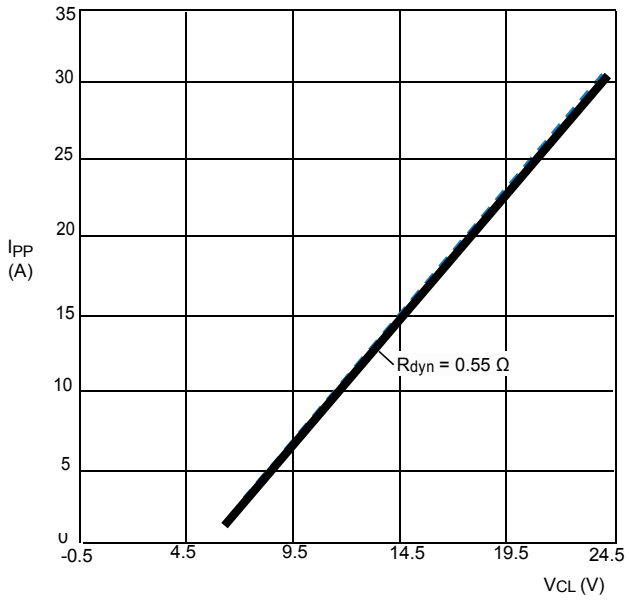
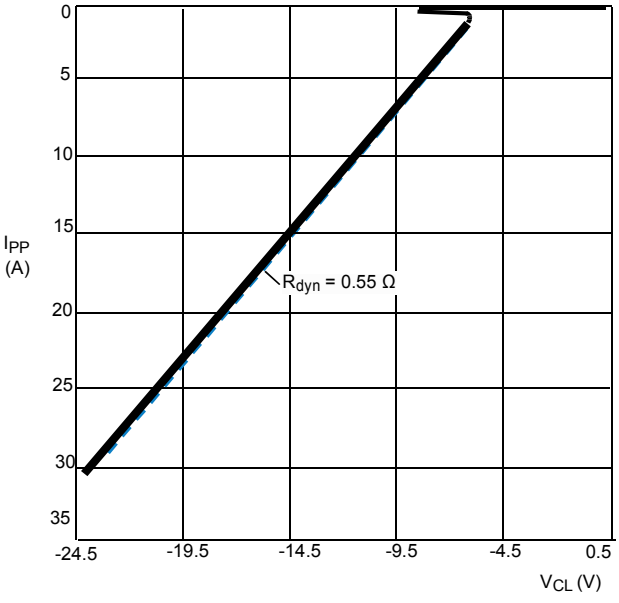
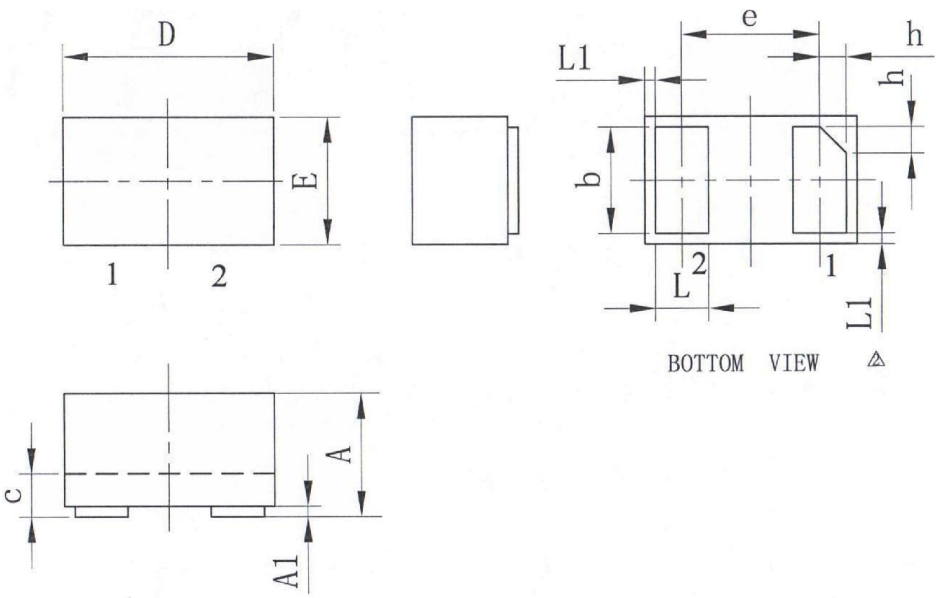


Figure5: Negative Clamping voltage (TLP)



»Outline Drawing – DFN1006



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.45	0.50	0.55
A1	0	0.02	0.05
b	0.45	0.50	0.55
c	0.12	0.15	0.18
D	0.95	1.00	1.05
e	0.65BSC		
E	0.55	0.60	0.65
L	0.20	0.25	0.30
L1	0.05REF		
h	0.07	0.12	0.17
载体尺寸 (Mil)	20*20		

»Marking



»Ordering information

Order code	Package	Base qty	Delivery mode
RCLAMP3321P-N	DFN1006	10k	Tape and reel

Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

BORN:

BAT46X BML6401 BWF102N GBJ1510 GBLC03C-N 5.0SMDJ15CA BSD9C051V P4SMA6.8CA BC858B BN5A181V45 BST23A052U MMBZ39VCLT1G-N PSD24-N BSD3A031V BSD3A241V 1.0SMBJ6.5A 1N4148WT BDFN2C031V SMFJ170A 1.5SMBJ18CA MMBZ27VCLT1G-N S8550 BSD3C031LX SM24CANB-02HTG-N ESDA14V2L PESD15VL1BA-N 1.5SMBJ40CA BDFN1C031V BM3134E SMD2920-400/30N