

Features

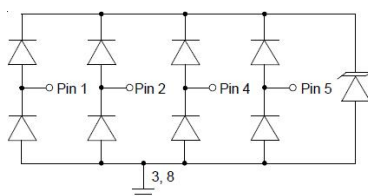
60W (8/20 μ s) Peak Pulse Power
Low Capacitance ESD Protection
Flow Through DFN2.5x1.0–10L Package
RoHS Compliant
Matte Tin Lead finish (Pb-Free)
Protect Four High Speed Data Lines
Meet IEC61000–4–2 Level 4:
Contact Discharge > 20kV
Air Discharge > 25kV

96BRY

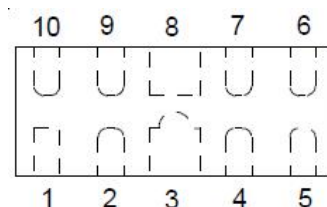
Application

PCI Express
MDDI Ports
eSATA Interfaces
Display Port Interface
Digital Visual Interface (DVI)
High Definition Multi-Media Interface (HDMI)

Circuit Diagram



PIN Diagram



Absolute Maximum Rating

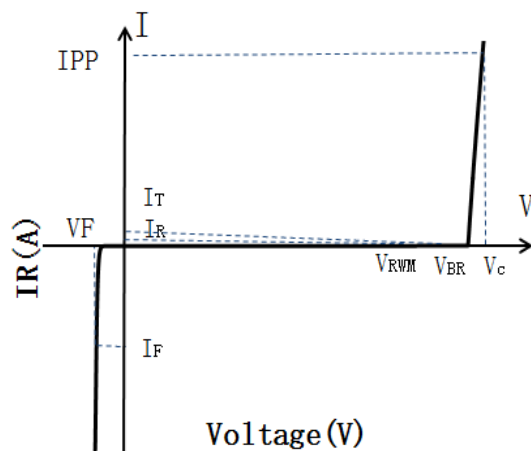
Symbol	Parameter	Value	Unit
PPK	Peak Pulse Power	60	W
I _{PP}	Peak Pulse Current	4.5	A
VESD (Contact)	Contact ESD Voltage per IEC61000–4–2	20	kV
VESD (Air)	Air ESD Voltage per IEC61000–4–2	25	kV
T _J	Junction Temperature	–55 to +125	℃
TSTG	Storage Temperature	–55 to +150	℃

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

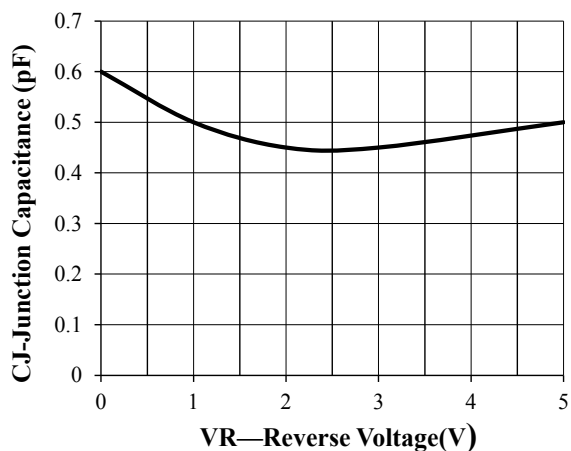
Symbol	Parameter	Conditions	Min	Typ	Max	Unit
VRWM	Reverse Working Peak Voltage				5	V
VBR	Reverse Breakdown Voltage	IT = 1mA	6	8	9	V
IR	Reverse Leakage Current	VRWM = 5V			1	μA
VC	Clamping Voltage	IPP = 4.5A (8/20μs)			15	V
CJ	Capacitance	VR = 0V, f = 1MHz Between I/O pins		0.3	0.4	pF
CJ	Capacitance	VR = 0V, f = 1MHz Any I/O pin to ground		0.6	0.7	pF

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

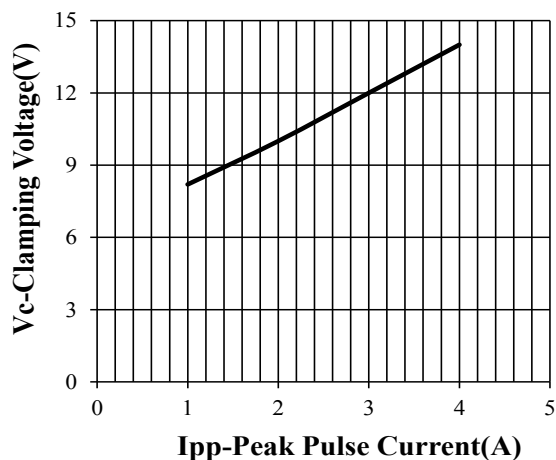
Symbol	Parameter
IT	Test Current
IPP	Maximum Reverse Peak Pulse Current
Vc	Clamping Voltage @Ic



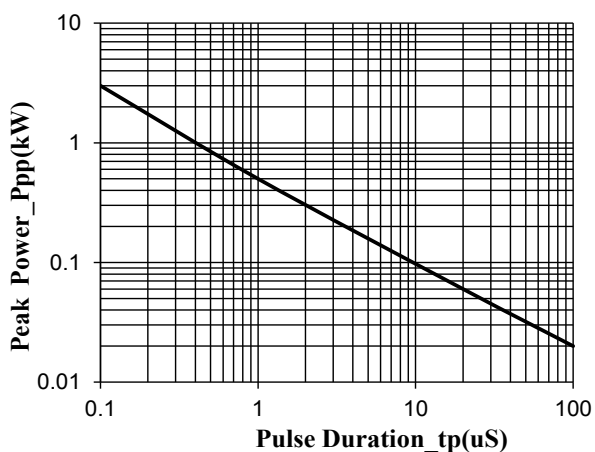
RATING AND CHARACTERISTIC CURVES



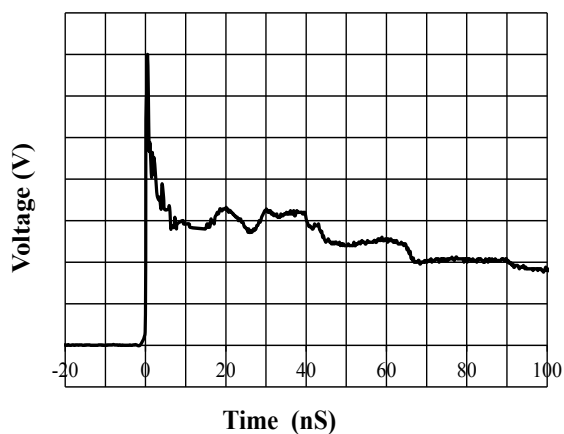
Junction Capacitance vs. Reverse Voltage



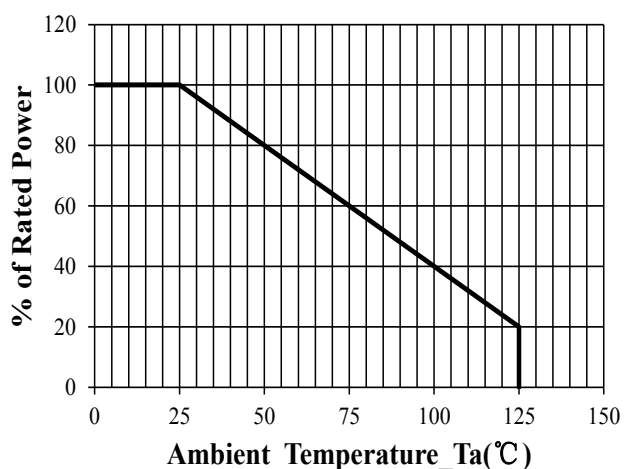
Clamping Voltage vs. Peak Pulse Current



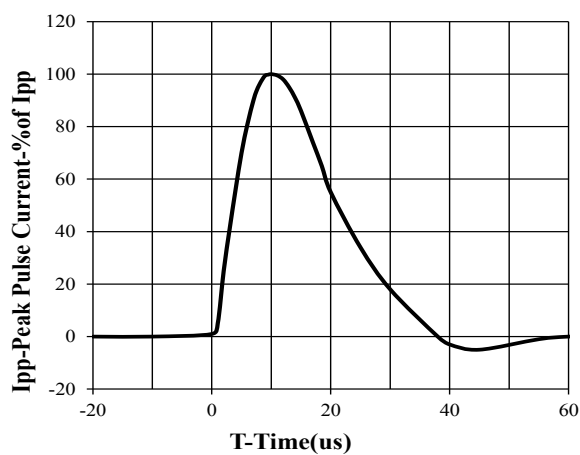
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform



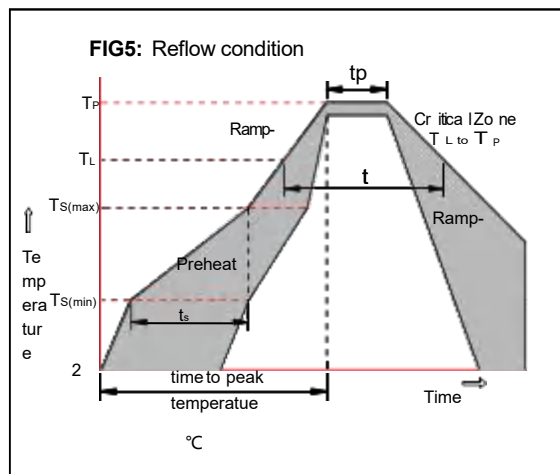
Power Derating Curve



8 X 20us Pulse Waveform

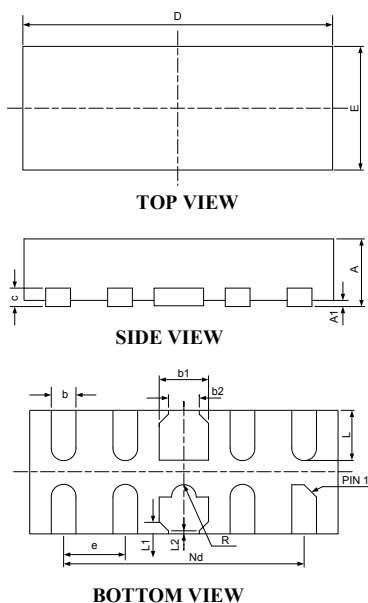
Soldering parameters

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



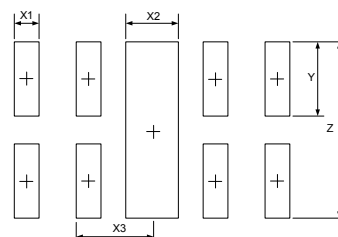
Package Dimensions & Suggested Pad Layout

USON-10(1X2.5)



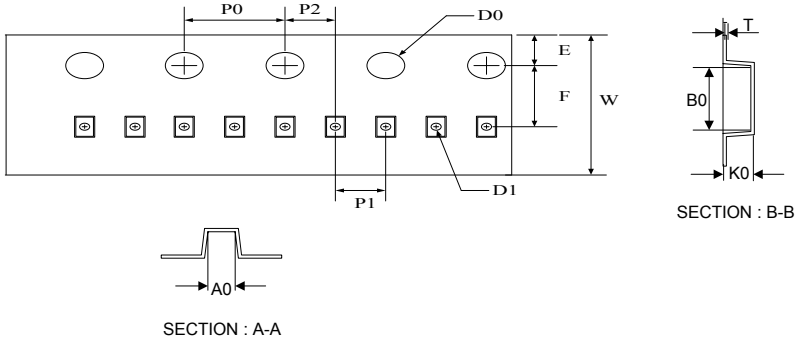
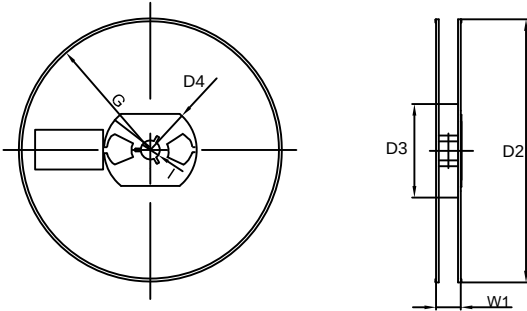
SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.45	0.50	0.55	0.018	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.15	0.20	0.25	0.006	0.008	0.010
b1	0.35	0.40	0.45	0.014	0.016	0.018
b2	0.20	0.25	0.30	0.008	0.010	0.012
c	0.10	0.15	0.20	0.004	0.006	0.008
D	2.45	2.50	2.55	0.098	0.100	0.102
e	0.50BSC			0.020BSC		
Nd	2.00BSC			0.080BSC		
E	0.95	1.00	1.05	0.038	0.040	0.042
L	0.35	0.40	0.45	0.014	0.016	0.018
L1	0.075REF			0.003REF		
L2	0.050REF			0.002REF		
h	0.08	0.12	0.15	0.003	0.005	0.006
R	0.05	0.10	0.15	0.002	0.004	0.006

Suggested Land Pattern



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
X1	0.200	0.008
X2	0.400	0.016
X3	0.500	0.020
Y	0.600	0.024
Z	1.400	0.056

Tape & reel specification

Tape		Symbol	Dimension (mm)
 SECTION : A-A SECTION : B-B		P0	4.00±0.20
		P1	2.00±0.20
		P2	2.00±0.20
		D0	1.55±0.20
		D1	0.50±0.20
		E	1.75±0.25
		F	3.50±0.20
		W	8.00±0.20
		A0	1.10±0.20
		B0	1.72±0.20
		K0	0.68±0.20
		T	0.20±0.20
		D2	177.0±5.0
		D3	55Min.
7" Reel		D4	R24.6±2.0
		G	R82.0±2.0
		I	13.0±2.0
		W1	10.20±3.0
		Quantity: 3000PCS	