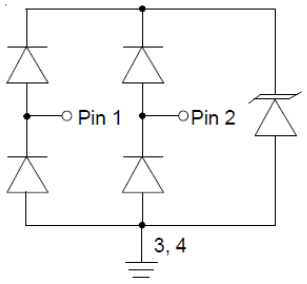
Features

◇100W(8/20μs) Peak Pulse Power
◇ Ultra Low Capacitance ESD Protection
◇ Flow Through DFN1.6x1.0-6L Package
◇ RoHS Compliant
◇ Matte Tin Lead finish (Pb-Free)
◇ Protect Two High Speed Data Lines
◇ Meet IEC61000-4-2 Level 4:
Contact Discharge > 12kV
Air Discharge > 17kV

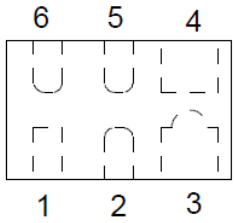
Applications

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

Circuit Diagram



PIN Diagram



Ordering information

Device	Package	Reel Size	Qty / Reel
TESD0522P	DFN1.6x1.0-6L	7 inch	3000

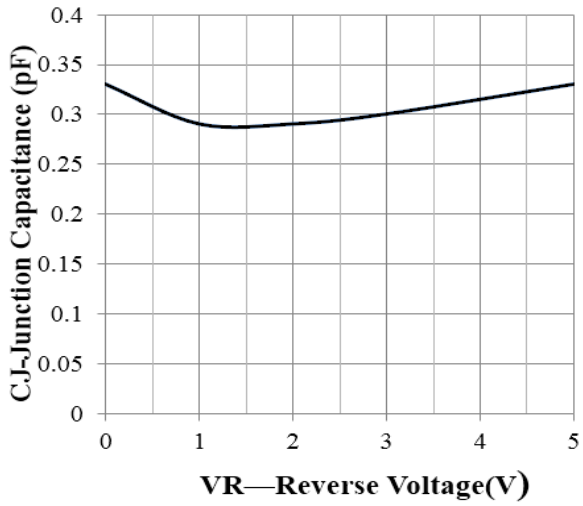
Maximum Ratings (Ta = 25℃)

Symbol	Parameter	Value	Unit
P_{PK}	Peak Pulse Power	150	W
I_{PP}	Peak Pulse Current	4.5	A
V_{ESD} (Contact)	Contact ESD Voltage per IEC61000-4-2	12	kV
V_{ESD} (Air)	Air ESD Voltage per IEC61000-4-2	17	kV
TJ	Junction Temperature	-55 to +125	℃
TSTG	Storage Temperature	-55 to +150	℃

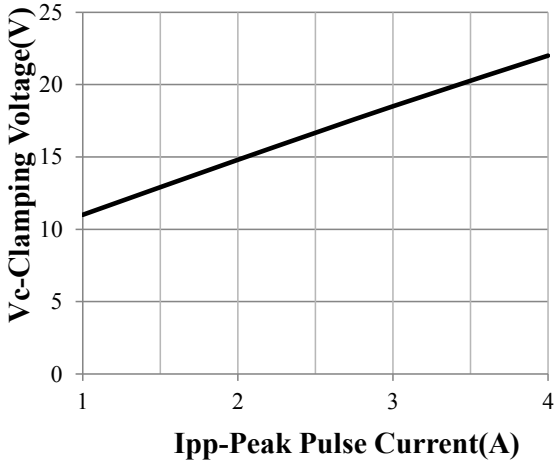
Electrical Characteristics (Ta = 25℃)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
VRWM	Reverse Working Peak Voltage				5	V
VBR	Reverse Breakdown Voltage	IT = 1mA	6			V
IR	Reverse Leakage Current	VRWM = 5V			1	μA
VC	Clamping Voltage	IPP = 4 . 5 A (8/20μs)			25	V
CJ	Capacitance	VR = 0V, f = 1MHz Between I/O pins			0.5	pF
CJ	Capacitance	VR = 0V, f = 1MHz Any I/O pin to ground			0.9	pF

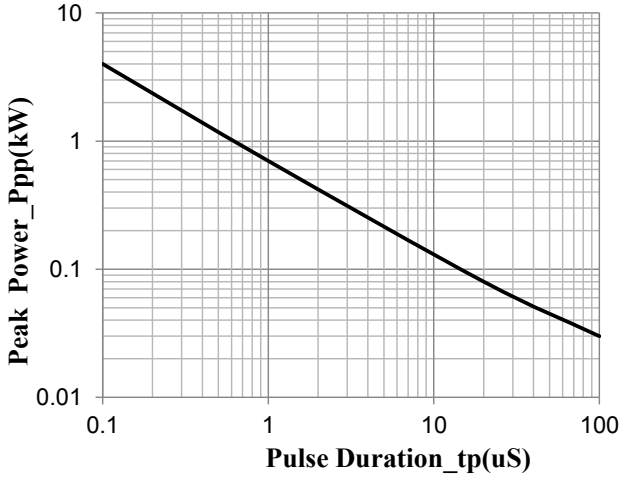
Typical Performance Curves



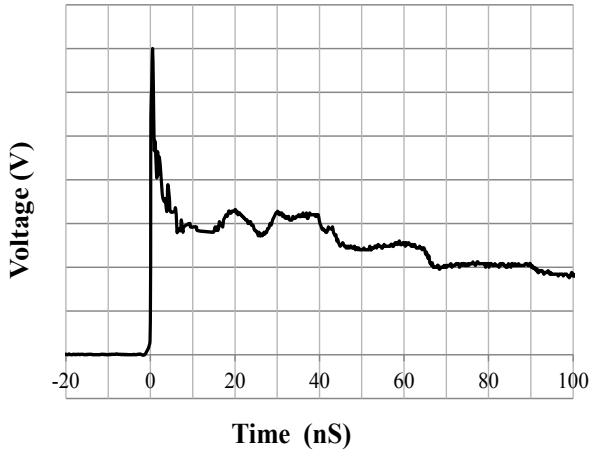
Junction Capacitance vs. Reverse Voltage



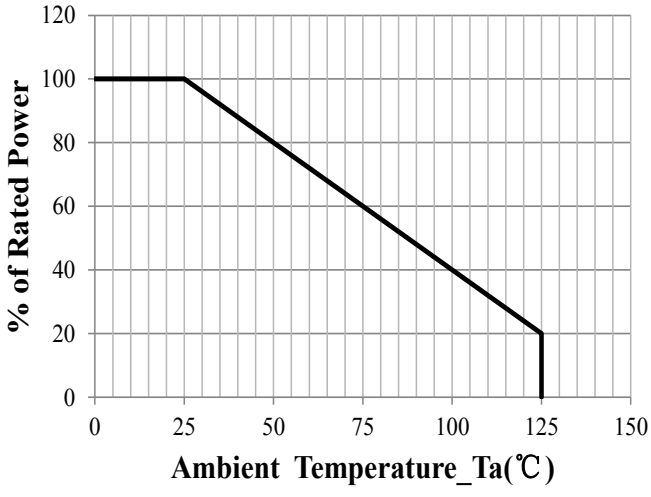
Clamping Voltage vs. Peak Pulse Current



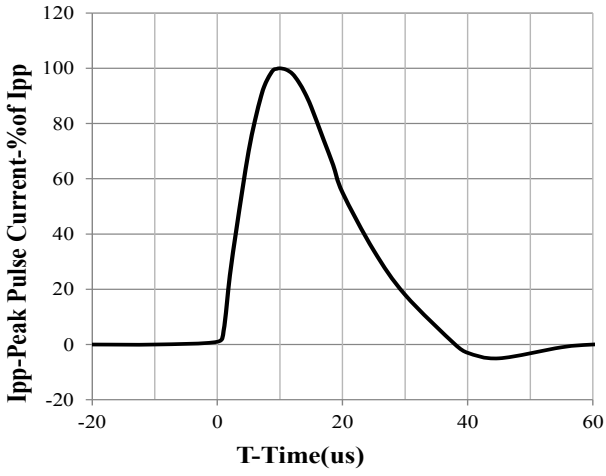
Peak Pulse Power vs. Pulse Time



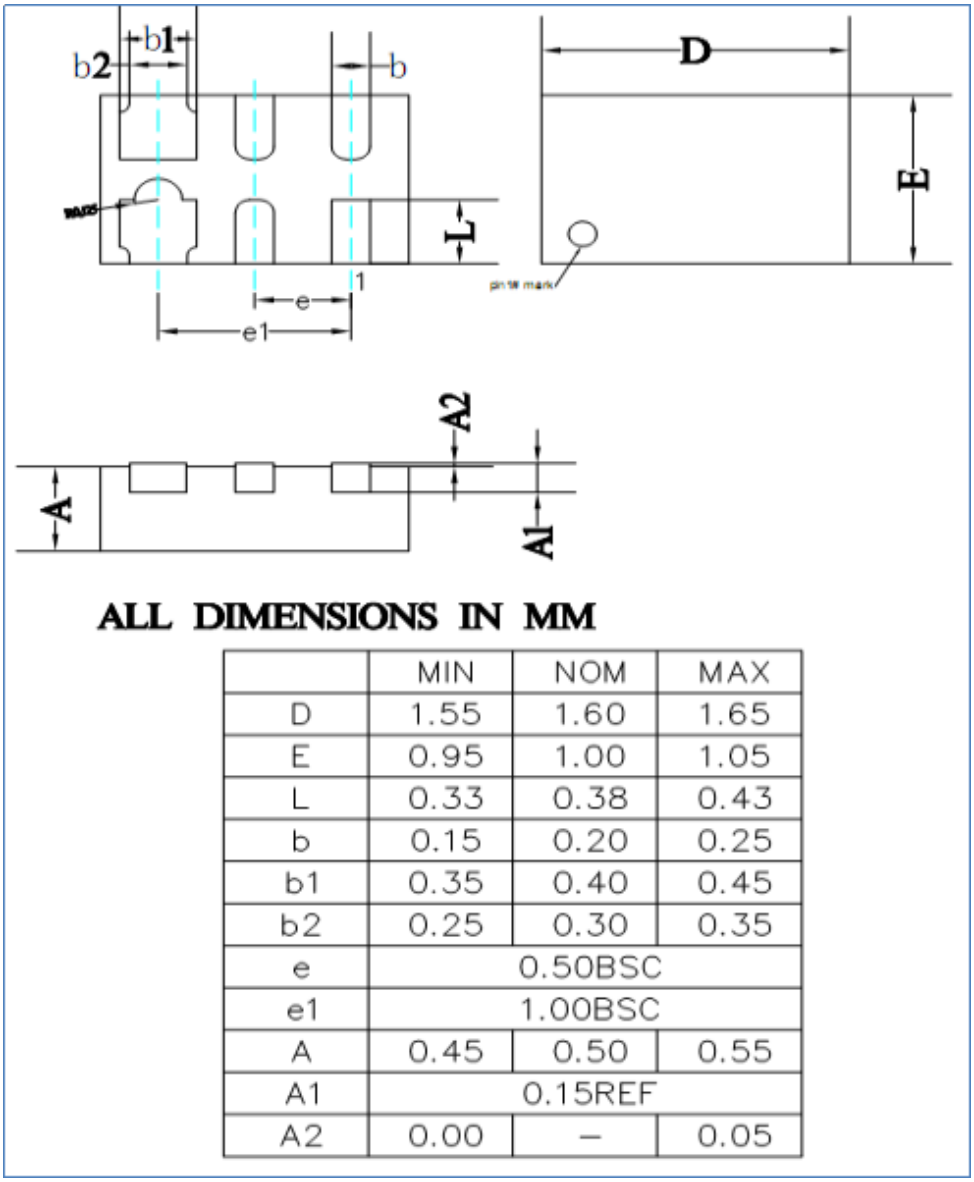
IEC61000−4−2 Pulse Waveform



Power Derating Curve



8 X 20us Pulse Waveform



ALL DIMENSIONS IN MM

	MIN	NOM	MAX
D	1.55	1.60	1.65
E	0.95	1.00	1.05
L	0.33	0.38	0.43
b	0.15	0.20	0.25
b1	0.35	0.40	0.45
b2	0.25	0.30	0.35
e		0.50BSC	
e1		1.00BSC	
A	0.45	0.50	0.55
A1		0.15REF	
A2	0.00	–	0.05