APPLICATIONS

►USB2.0,USB3.0,Ethernet
►HDMI1.4,Displayport 1.3,eSATA
►Unified Display Interface
►Digital Visual Interface
►High Speed Serial Interface

IECCOMPATIBILITY

►IEC61000-4-2 (ESD) ±20kV (air), ±20 kV (contact)
►IEC61000-4-5 (Lightning) 12.0A(8/20μs)

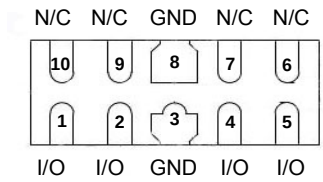
FEATURES

►60.0 Watts Peak Pulse Power per Line (tp=8/20μs)
►Protects Four I/O lines
►Operating Voltage: 3.3V
►Ultra Low Capacitance: 0.7pF typical (I/O to GND)

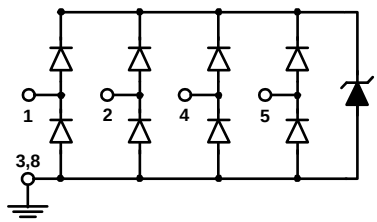
MECHANICALCHARACTERISTICS

►DFN2510P10 PACKAGE INFORMATION
►Quantity Per Reel : 3,000pcs
►Reel Size : 7 inch
►Lead Finish : Lead Free
►Marking : Q7

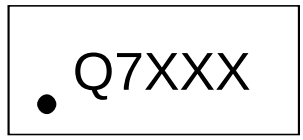
DFN-2510



PIN CONFIGURATION



Marking codes



Note

(1)"Q7" is device code,fixed.
(2)"XXX" is date code,

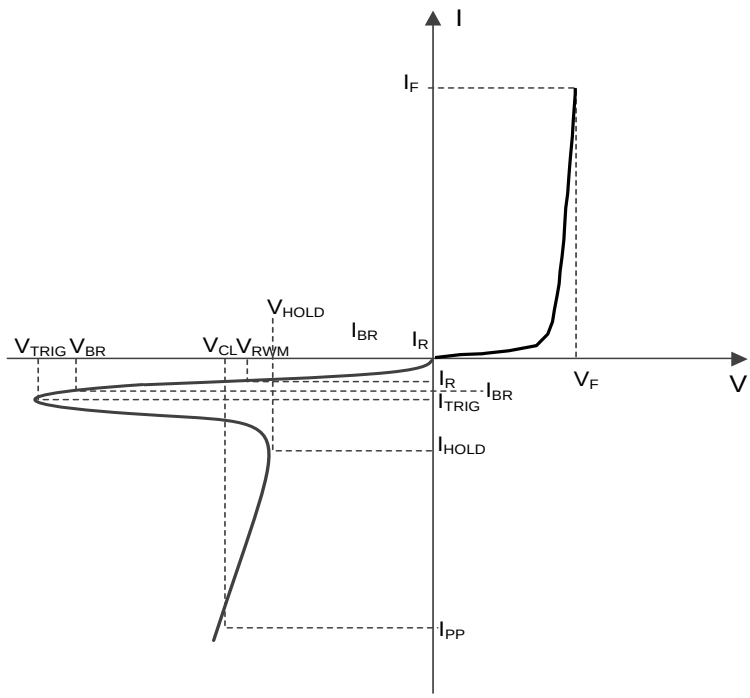
Absolute maximum rating@25℃			
Rating	Symbol	Value	Unit
Peak Pulse Power (tP = 8/20μS)	Ppp	60	W
Lead Solder Temperature −Maximum (10 Seconds)	TL	260	°C
Operating Junction Temperature Range	TJ	−55 to +125	°C
Storage Temperature Range	Tstg	−55 to +150	°C

Electrical characteristics (TA=25 oC, unless otherwise noted)

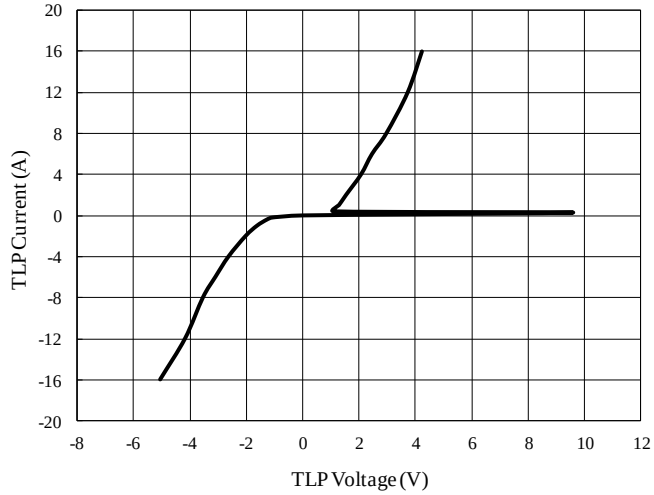
Parameter	Symbol	Conditions	Min.	TYP.	Max.	Units
Reverse stand-off voltage	V_{RWM}				3.3	V
Reverse leakage current	I_R I/O to GND	V_{RWM}=3.3V			0.1	uA
Reveres breakdown voltage	V_{BR} I/O to GND	I_T=1mA	3.6			V
Reveres breakdown voltage	V_h I/O to GND	I_h=100mA	0.8			V
ESD Dynamic Turn-on Resistance	$R_{dynamic}$	t_p=10/100ns		0.2		Ω
ESD Clamping Voltage	V_{clamp}	I_{PP}=16A,t_p=10/100ns		4.5		V
Clamping voltage	V_C I/O to GND	I_{pp}= 12.0A(8/20us)		5.0		V
Junction capacitance	C_J I/O to GND	VR=0V f=1MHz		0.6		pF

ELECTRICAL CHARACTERISTICS
(T_A = 25°C unless otherwise noted)

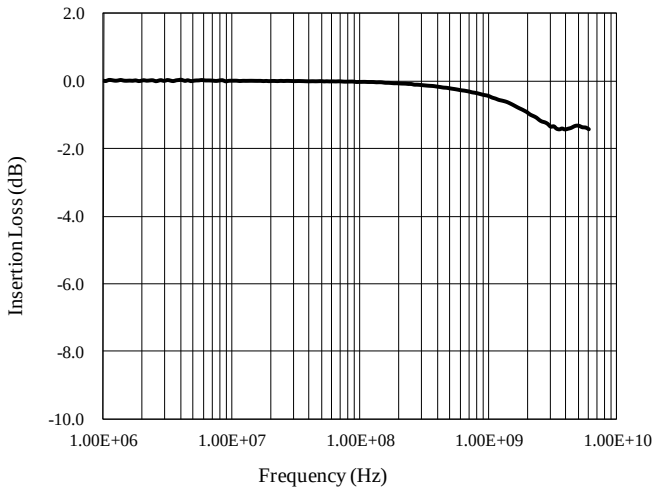
V_{RWM}	Reverse stand-off Voltage
I_R	Reverse leakage current
V_{CL}	Clamping voltage
I_{PP}	Peak pulse current
V_{TRIG}	Reverse trigger voltage
I_{TRIG}	Reverse trigger current
V_{BR}	Reverse breakdown voltage
I_{BR}	Reverse breakdown current
V_{HOLD}	Reverse holding voltage
I_{HOLD}	Reverse holding current



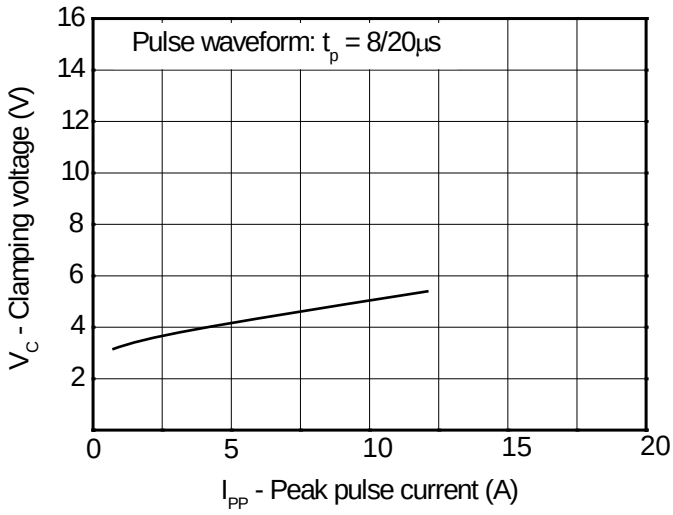
Typical characteristics (T_A=25°C, unless otherwise noted)



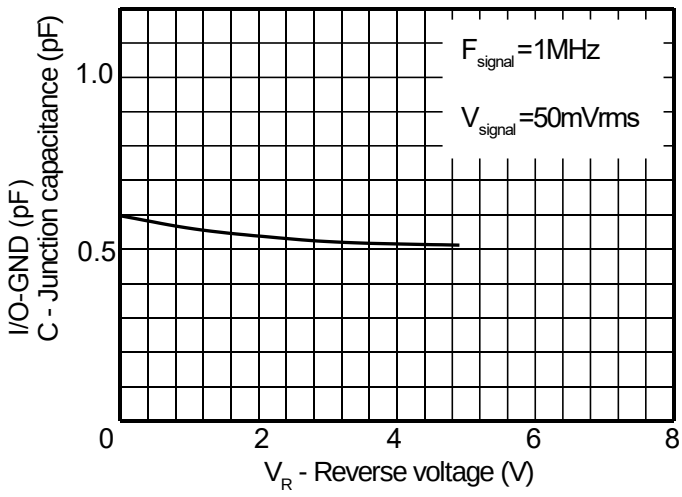
TLP Testing of I/O to GND



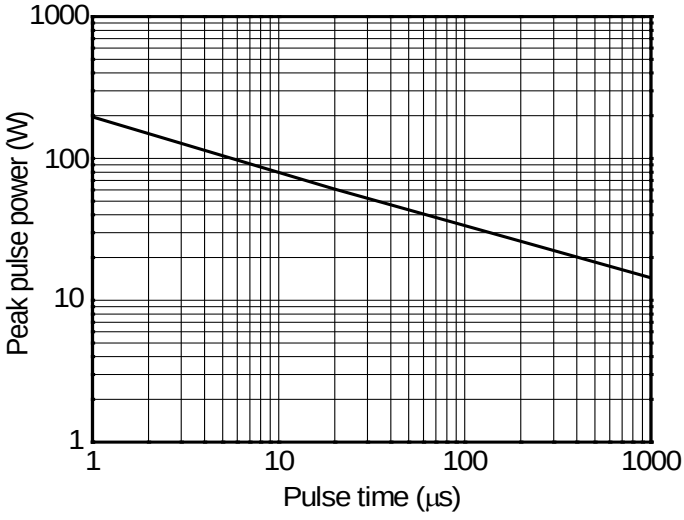
Insertion Loss S21 of I/O to GND



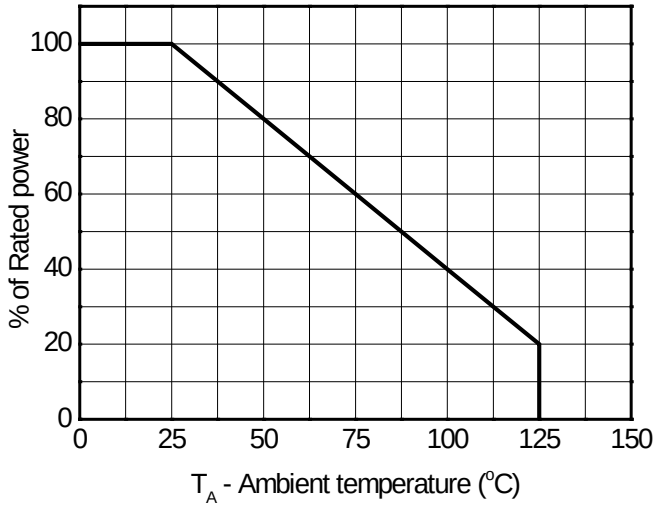
Clamping voltage vs. Peak pulse current



Capacitance vs. Reveres voltage

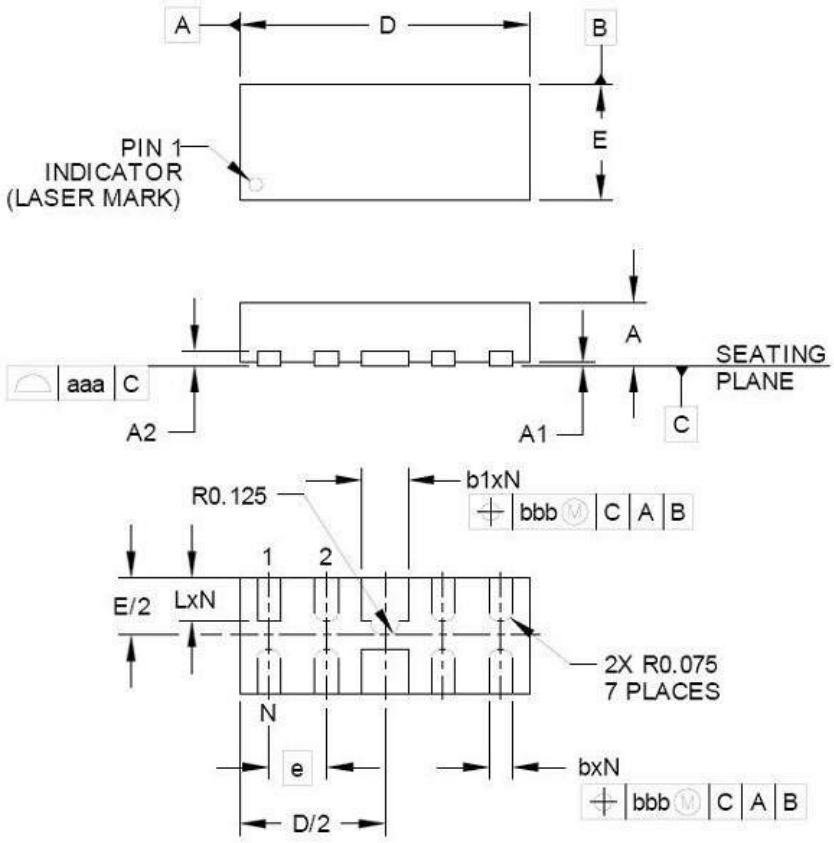


Non-repetitive peak pulse power vs. Pulse time



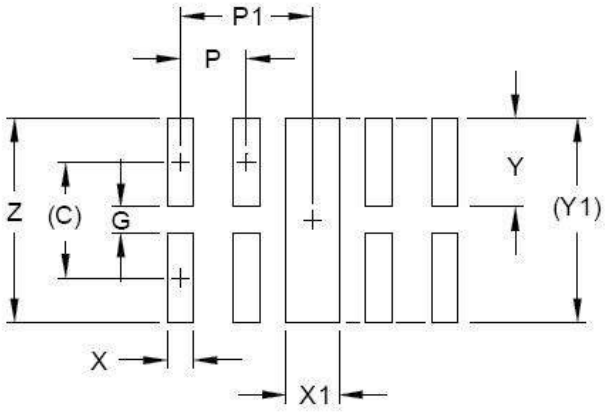
Power derating vs. Ambient temperature

DFN2510PACKAGEOUTLINE DIMENSIONS



DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	.020	.023	.026	0.50	0.58	0.65
A1	0.00	.001	.002	0.00	0.03	0.05
A2		(.005)			(0.13)	
b	.006	.008	.010	0.15	0.20	0.25
b1	.014	.016	.018	0.35	0.40	0.45
D	.094	.098	.102	2.40	2.50	2.60
E	.035	.039	.043	0.90	1.00	1.10
e		.020 BSC			0.50 BSC	
L	.012	.015	.017	0.30	0.38	0.425
N		10			10	
aaa		.003			0.08	
bbb		.004			0.10	

*SOLDERINGFOOTPRINT



DIM	INCHES	MILLIMETERS
C	(.034)	(0.875)
G	.008	0.20
P	.020	0.50
P1	.039	1.00
X	.008	0.20
X1	.016	0.40
Y	.027	0.675
Y1	(.061)	(1.55)
Z	.061	1.55