

Features

- 3360 Watts Peak Power (tp=8/20s)
- Small Body Outline Dimensions
- Protects one I/O or power line
- Low Clamping Voltage
- Working Voltage: 15V
- Low Leakage Current

Mechanical Characteristics

- DFN1610-2L package
- Marking: Marking Code
- Packaging: Tape and Reel per EIA 481
- RoHS Compliant & HF

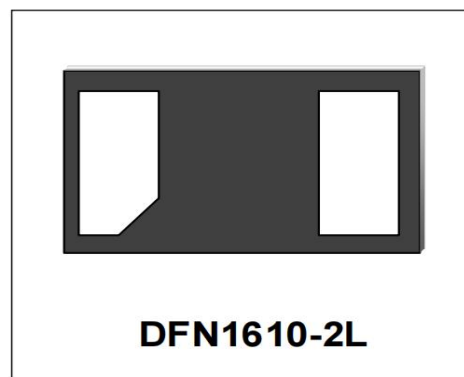
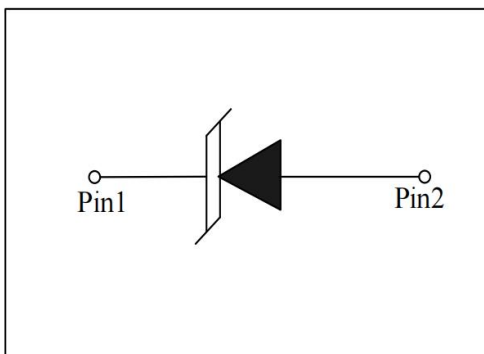
Applications

- Laptop Computers
- Cellular Phones
- Digital Cameras
- Personal Digital Assistant (PDA)

IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 30\text{kV}$ (air), $\pm 30\text{kV}$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 120A (8/20 μs)

Schematic & PIN Configuration

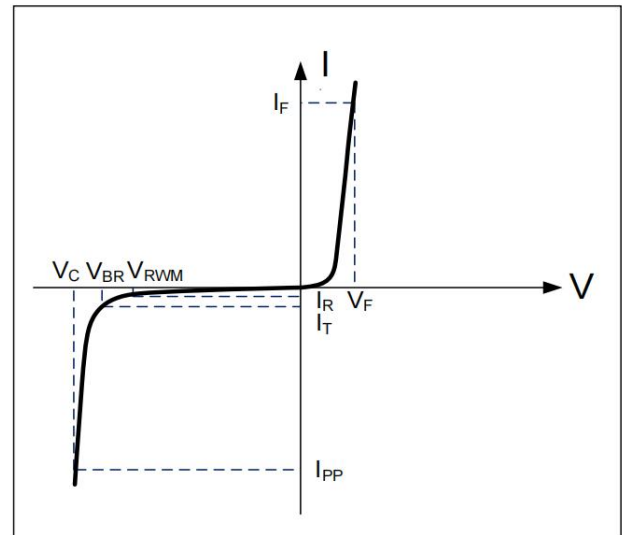


Absolute Maximum Ratings

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	3360	Watts
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{PP}	120	A
Operating Temperature	T_J	-55 to + 125	$^{\circ}C$
Storage Temperature	T_{STG}	-55 to + 150	$^{\circ}C$

Electrical Parameters

Symbol	Parameter
I_{PP}	Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Reverse Stand-Off Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F



Electrical characteristics(T=25°C unless otherwise noted)

CSY15V0H1U2QC						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}				15	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	16		19	V
Forward Voltage	V_F	$I_F=10mA$	0.6		1.2	V
Reverse Leakage Current	I_R	$V_{RWM}=15V$			200	nA
Clamping Voltage	V_C	$I_{PP}=120A, t_p=8/20\mu s$		26.3	28	V
Dynamic Resistance ^{1,2}	R_{DYN}	$TLP=0.2/100ns$		0.05		Ω
ESD Clamping Voltage ¹	V_C	$I_{PP} = 4A,$ $t_p = 0.2/100ns$ (TLP)		17.4		V
ESD Clamping Voltage ¹	V_C	$I_{PP} = 16A,$ $t_p = 0.2/100ns$ (TLP)		18		V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		660	800	pF

Note:

- 1、TLP Setting: $t_p=100ns, t_r=0.2ns, ITLP$ and $VTLP$ sample window: $t_1=70ns$ to $t_2=90ns$.
- 2、Dynamic resistance calculated from $I_{PP}=4A$ to $I_{PP}=16A$ using "Best Fit"

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

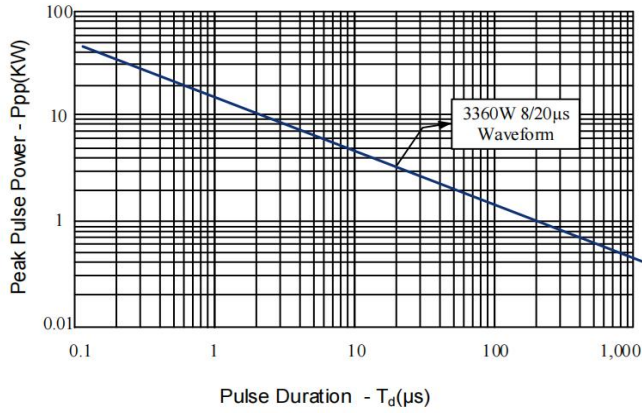


Figure 2: Power Derating Curve

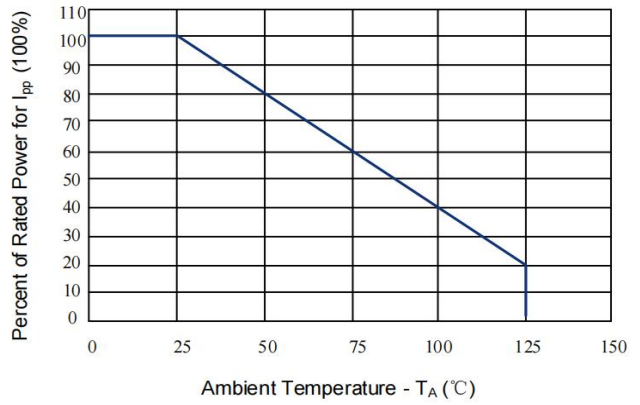


Figure 3: Clamping Voltage vs. Peak Pulse Current

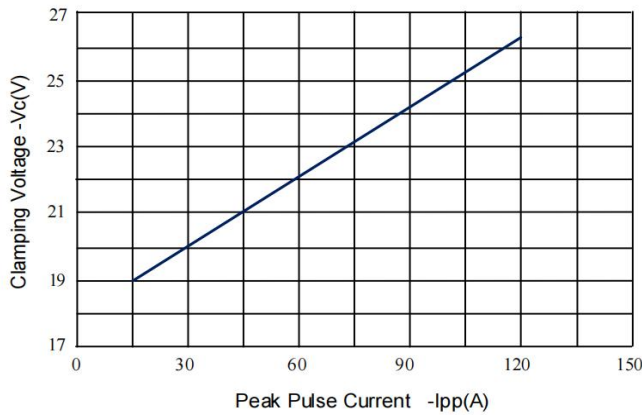


Figure 4: Normalized Junction Capacitance vs. Reverse Voltage

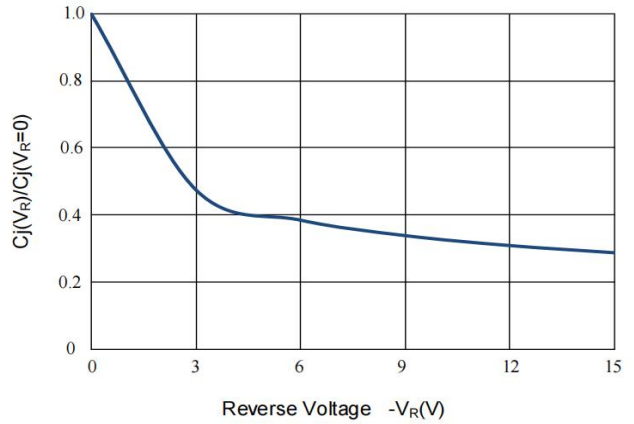


Figure 5: Pulse Waveform

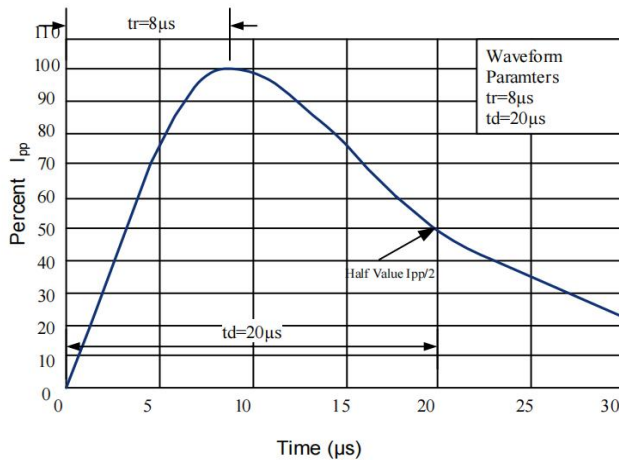
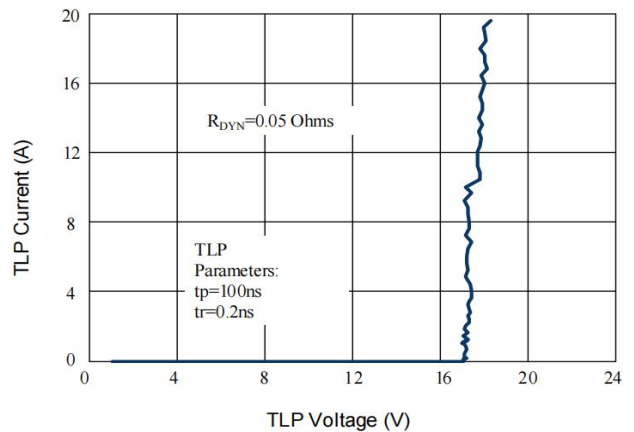



Figure 6: TLP I-V Curve



Marking Codes

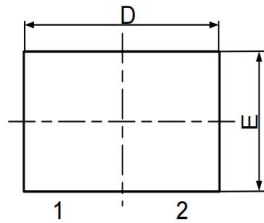
Part Number	Marking Code		
CTSY15V0H1U2QC	1		2
	QP=Specific Device Code X=Month Code		

Package Information

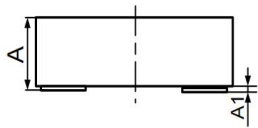
Qty: 10k/Reel

Outline Drawing -DFN1610-2L

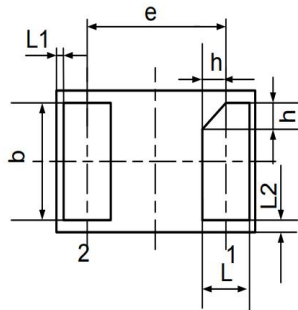
PACKAGE OUTLINE



TOP VIEW



SIDE VIEW



BOTTOM VIEW



DFN1610-2L

DIMENSIONS			
SYMBOL	MILLIMETERS		
	MIN	NOM	MAX
A	0.450	-	0.550
A1	-	-	0.050
D	1.590	1.620	1.650
E	0.990	1.020	1.050
b	0.750	0.800	0.850
L	0.350	0.400	0.450
h	0.150	0.200	0.250
L1	0.060REF		
L2	0.110REF		
e	1.100BSC		

Land Pattern

