Uni-directional ESD Protection Diode

Peak Pulse Power - 1870 Watts
Reverse Working Voltage - 7V

Description

The H85X57V0U is offers superior electrical characteristics suchas high surge capability. It is designed to protect sensitiveelectronic components which are connected to power lines, fromover-stress caused by ESD (Electrostatic Discharge).

Features

- 1 Channel of ESD Protection (Uni-directional)
- Peak Pulse Power :Ppp = 1870W (tp=8/20 us)
- Reverse Working Voltage : 7V
- Low Clamping Voltage
- IEC 61000-4-2 (ESD) :±30kV(Contact) / ±30kV(Air)

Applications

- Power Supply Protection
- USB Power Delivery

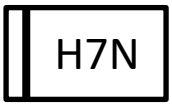
Mechanical Data

- Case: DFN1610 Package
- Case Material: UL Flammability Classification Rating 94V-0
- Component in accordance to RoHS
- Halogen Free

Ordering Information

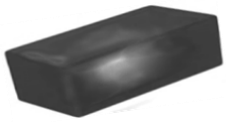
- Package :DFN1610
- Reel Size :7 (inches)
- Quantity Per Reel :3,000/Tape & Reel

Marking Information



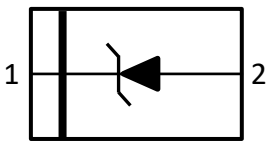
Product Type Marking Code

Package Outline



DFN1610 Package

Device Schematic & PIN Configuration



Maximum Ratings (@TA = +25°C, unless otherwise specified.)

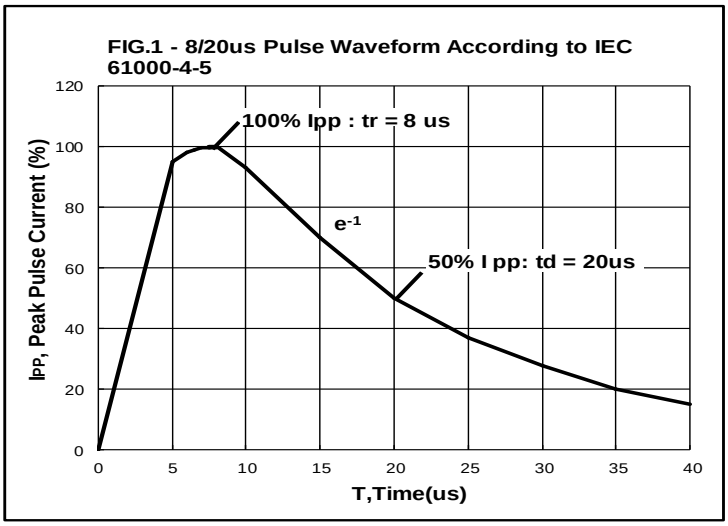
Absolute Ratings

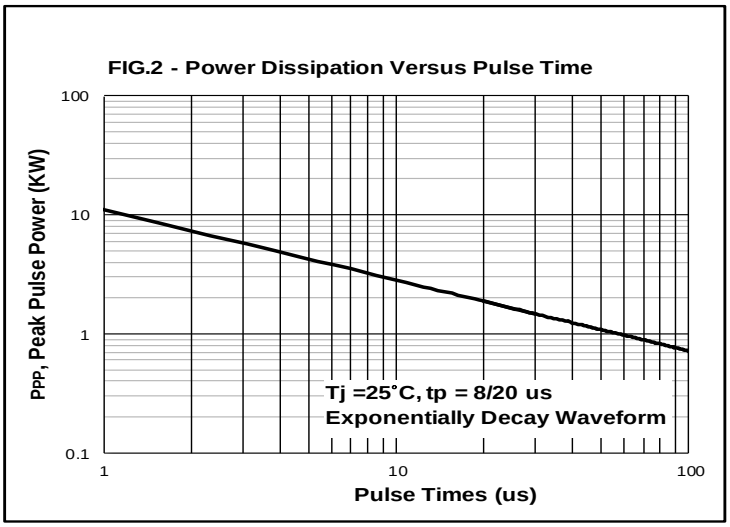
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation (8/20 us)	P_{PP}	1870	W
Peak Pulse Current (8/20 us)	I_{PP}	85	A
Operating Supply Voltage	V_{DC}	7.7	V
ESD Protection- Contact (Standard IEC 61000-4-2)	V_{ESD}	±30	kV
ESD Protection- Air (Standard IEC 61000-4-2)		±30	
Junction Temperature	T_J	125	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

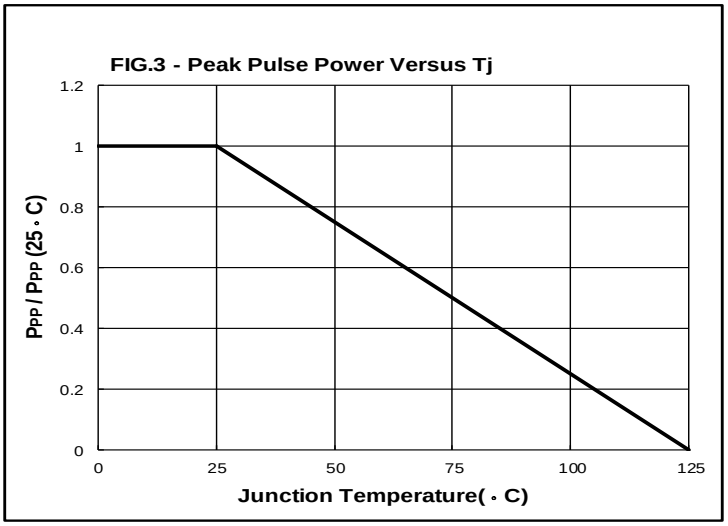
Electrical Characteristics

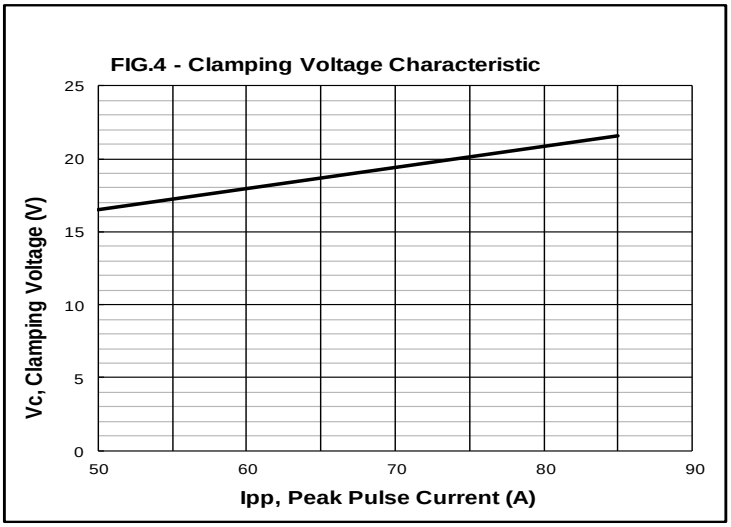
Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse Working Voltage	-	V_{RWM}	-	-	7	V
Reverse Breakdown Voltage	I_T= 1mA	V_B	7.5	-	9.0	V
Reverse Leakage Current	V_R = 7V	I_R	-	-	1	uA
Clamping Voltage (IEC 6100-4-5)	I_{PP} = 50A,t_p =8/20us	V_C	-	-	18	V
	I_{PP} = 85A,t_p =8/20us		-	-	22	V
Junction Capacitance	V_R = 0V, F = 1MHz	C_J	-	800	850	pF

Rating and Characteristic Curves



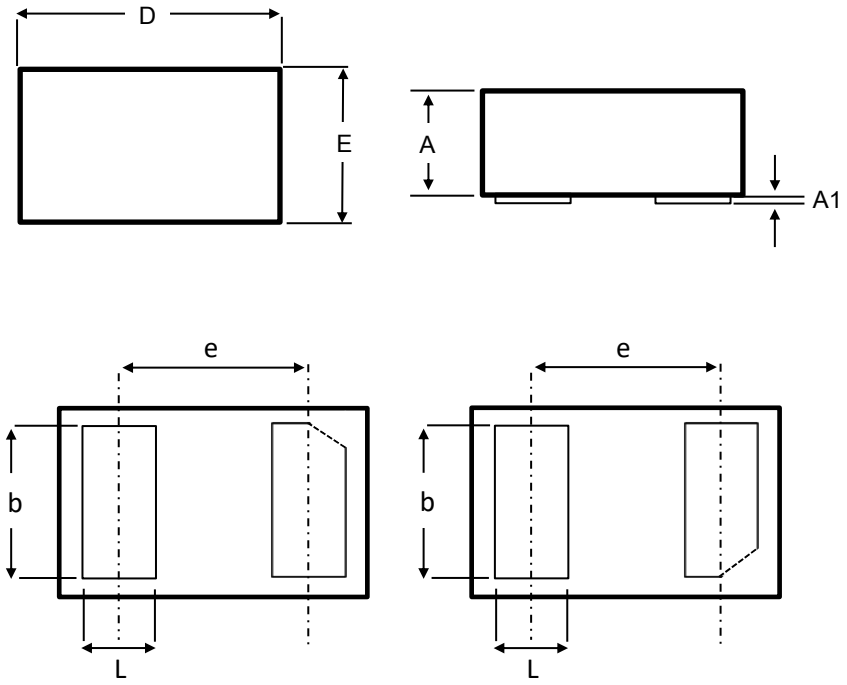






The curve above is for reference only.

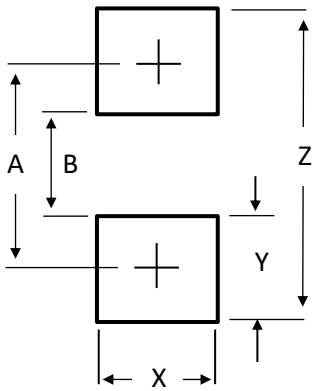
Package Outline Dimensions



DFN1610 Package		
Dim.	Min	Max
D	1.55	1.65
E	0.95	1.05
A	0.45	0.55
A1	0.00	0.05
e	1.10 BSC	
b	0.75	0.85
L	0.35	0.45
All Dimensions in mm		

Note: HY internal have both AT site

Suggested Soldering Pad Layout



Dim.	Value
A	1.23
B	0.60
X	1.09
Y	0.70
Z	1.90
All Dimensions in mm	

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