

### Features

- ◇ 70W (8/20 $\mu$ s) Peak Pulse Power
- ◇ Low Capacitance ESD Protection
- ◇ SOT-363 Package
- ◇ RoHS Compliant
- ◇ Matte Tin Lead finish (Pb-Free)
- ◇ Protect Four High Speed Data Lines and Vcc
- ◇ Meet IEC61000-4-2 Level 4:
  - Contact Discharge > 8kV
  - Air Discharge > 15kV

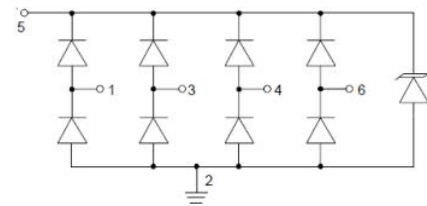
### Applications

- ◇ USB 2.0
- ◇ USB OTG
- ◇ SIM Ports
- ◇ Gigabit Ethernet
- ◇ Notebook Computers
- ◇ Video Line Protection
- ◇ Digital Video Interface (DVI)
- ◇ IEEE 1394 Firewires Ports
- ◇ Monitors and Flat Panel Displays

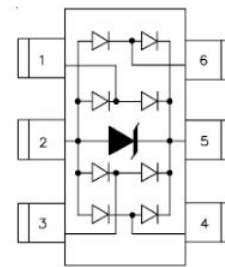
### Ordering information

Device	Package	Making
NUP4202W1T2G	SOT-363	63

### Circuit Diagram



### PIN Diagram



### Maximum Ratings (Ta = 25°C)

Symbol	Parameter	Value	Unit
PPK	Peak Pulse Power	70	W
I <sub>PP</sub>	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	20	kV
T <sub>J</sub>	Junction Temperature	-55 to +125	°C
TSTG	Storage Temperature	-55 to +150	°C

# NUP4202W1T2G

## Electrical Characteristics (Ta = 25°C)

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			3	μA
VC	Clamping Voltage	IPP = 1A (8/20μs)			12	V
VC	Clamping Voltage	IPP = 4.5A (8/20μs)			18	V
CJ	Capacitance	VR = 0V, f = 1MHz Between I/O pins			0.4	pF
CJ	Capacitance	VR = 0V, f = 1MHz Any I/O to ground			1	pF

## RATING AND CHARACTERISTIC CURVES (NUP4202W1T2G)

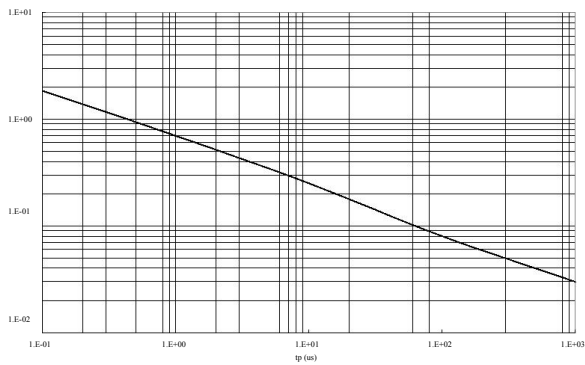


Figure 1. Peak Pulse Power Derating

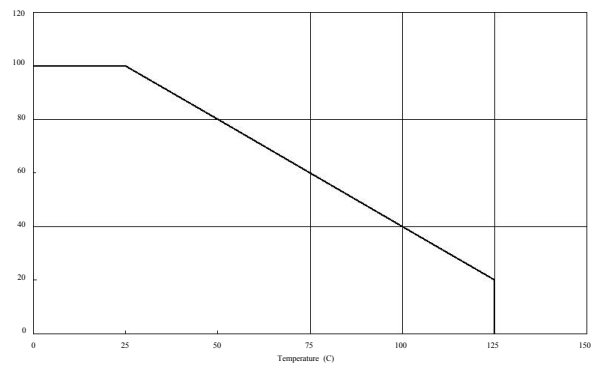


Figure 2. Peak Pulse Power Derating vs Temperature

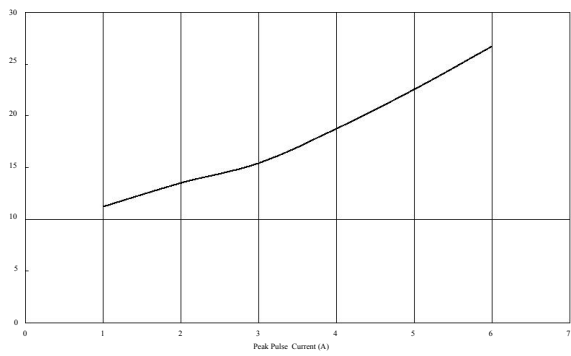


Figure 3. Peak Pulse Current vs Clamping Voltage

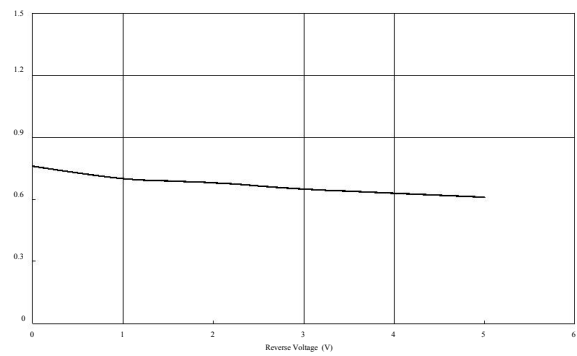
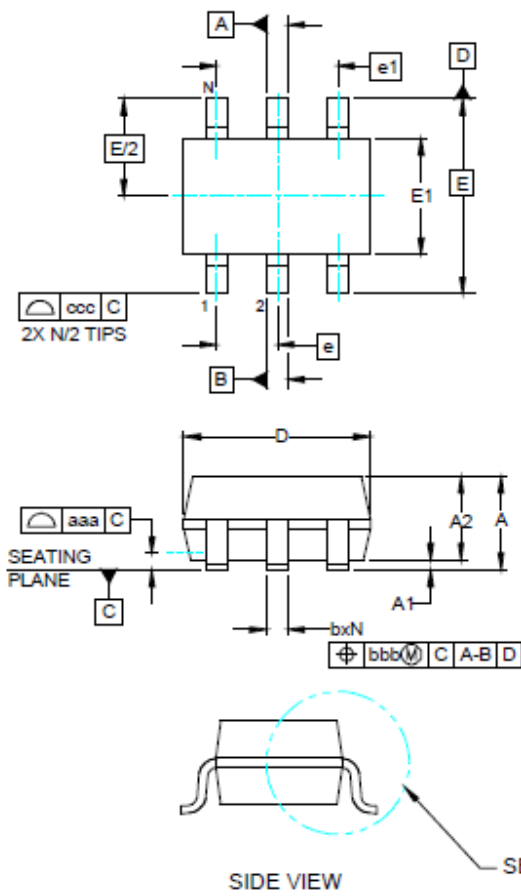


Figure 4. Reverse Voltage vs Capacitance

# SOT-363 PACKAGE OUTLINE DIMENSIO



DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	-	-	.043	-	-	1.10
A1	.000	-	.004	0.00	-	0.10
A2	.028	.035	.039	0.70	0.90	1.00
b	.008	-	.012	0.15	-	0.30
c	.003	-	.009	0.08	-	0.22
D	.071	.079	.087	1.80	2.00	2.20
E1	.045	.049	.053	1.15	1.25	1.35
E	.083 BSC			2.10 BSC		
e	.028 BSC			0.65 BSC		
e1	.051			1.30 BSC		
L	.010	.014	.018	0.26	0.36	0.46
L1	(.017)			(0.42)		
N	6			6		
$\theta_1$	0°	-	8°	0°	-	8°
aaa	.004			0.10		
bbb	.004			0.10		
occ	.012			0.30		

