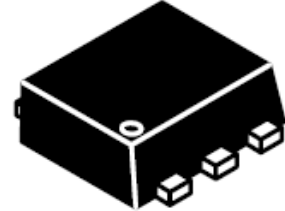
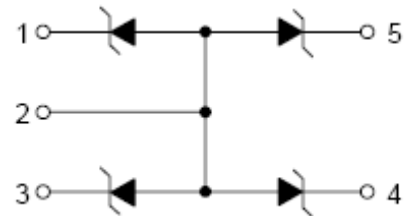


**STANDARD CAPACITANCE TVS****Features**

- Small SOT-553 SMT Package
- Peak Power Dissipation 20W @8 x 20 us Pulse
- Low Leakage Current < 1uA @3 Volts
- Fast Response Time < 1 ns
- Low Capacitance
- ESD Protection to IEC 61000-4-2 Level 4
- Complies to USB 1.1 Low Speed & High Speed Specifications
- RoHS Compliant in Lead-Free Versions

**Applications**

- Instrumentation Equipment
- Serial and Parallel Ports
- Microprocessor Based Equipment
- Notebooks, Desktops, Servers

**Absolute Maximum Ratings**

Parameter	Symbol	Value	Units
Peak Power Dissipation (Note 1.) @ $T_L = 25^\circ\text{C}$	P_{PK}	20	W
Steady State Power – 1 Diode (Note 2)	P_D	380	mW
Maximum Junction Temperature	T_{Jmax}	150	$^\circ\text{C}$
Operating Junction Temperature Range	T_J	-55 to 150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to 150	$^\circ\text{C}$

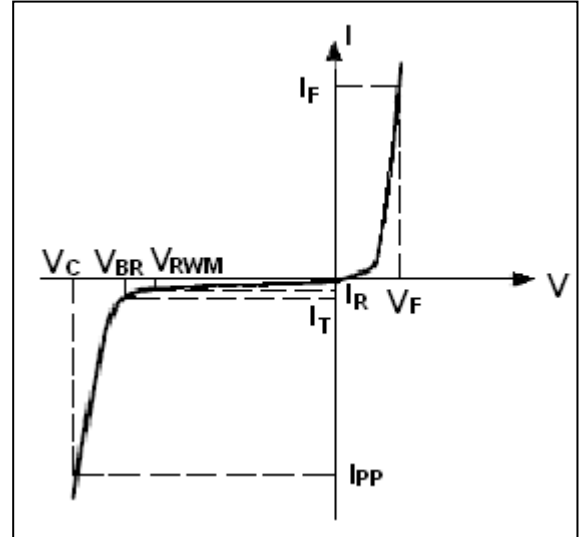
1. 8 X 20 us, non-repetitive Figure 1.
2. Only 1 diode under power. For all 4 diodes under power, P_D will be 25%. Mounted on Fr-4 board with min pad.

NZQA6V8AXV5

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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



Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Device	Marking	V_{RWM}	I_R (μ A)	V_{BR} (V)			V_C (V)	Capacitance	
		(V)	@ V_{RWM}	@ 1 mA			@ $I_{PP}=1.6$ A*	@ 0V Bias(pF)(note 3)	
		Max	Max	Min	Nom	Max	Typ	Typ	Max
NZQA5V6AXV5	6P	3.0	1.0	5.3	5.9	5.9	13	13	17
NZQA6V8AXV5	6H	4.3	1.0	6.4	6.8	7.2	13	12	15

*Surge current waveform per Figure 1.

3. Capacitance of one diode at $f=1$ MHz, $V_R=0$ V, $T_A=25^\circ$ C.

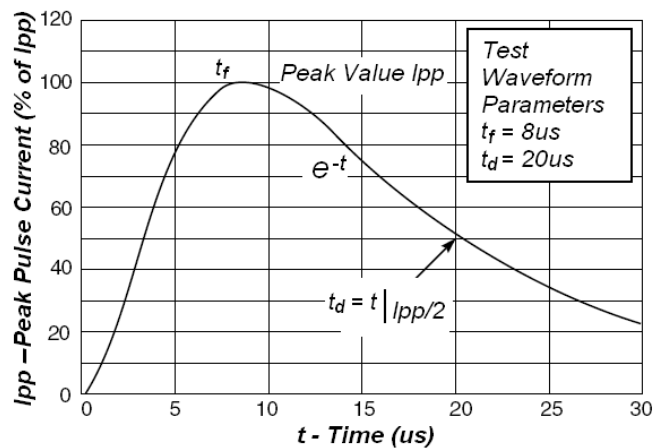


Fig1. Pulse Waveform

NZQA6V8AXV5

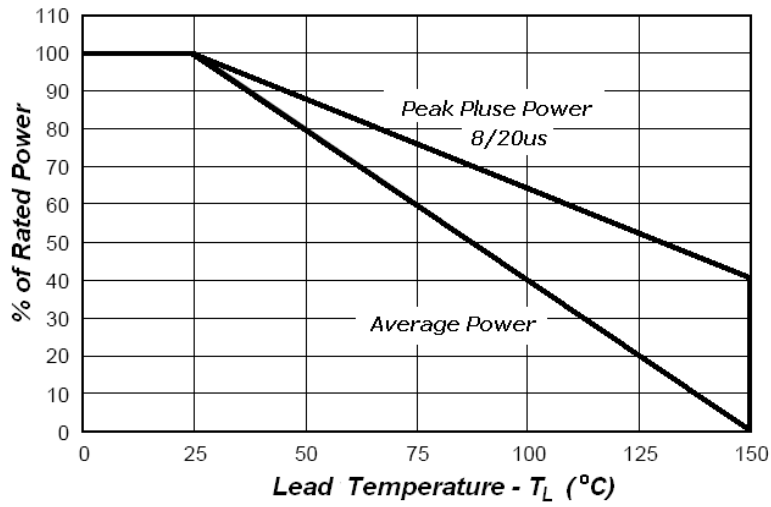
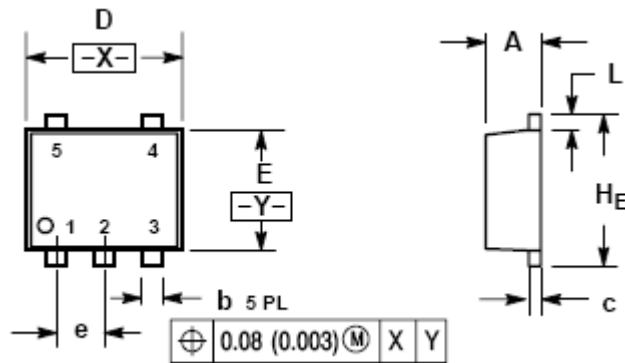


Fig2. Power Derating

Package Dimensions

SO5-553



Dim	Millimeters			Inches		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.50	0.55	0.60	0.020	0.022	0.024
b	0.17	0.22	0.27	0.007	0.009	0.011
c	0.08	0.13	0.18	0.003	0.005	0.007
D	1.50	1.60	1.70	0.059	0.063	0.067
E	1.10	1.20	1.30	0.043	0.047	0.051
e	0.50 BSC			0.020 BSC		
L	0.10	0.20	0.30	0.004	0.008	0.012
H_E	1.50	1.60	1.70	0.059	0.063	0.067