



SSCT4V5X2L2

SSCT4V5X2L2 Series

High Power TVS Diode

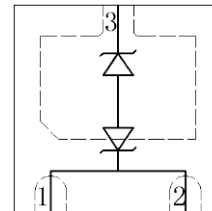
● Description

The SSCT4V5X2L2 is a high power TVS, utilizing leading monolithic silicon technology to provide fast response time and low ESD clamping voltage, making this device an ideal solution for protecting voltage sensitive lines. The SSCT4V5X2L2 Series complies with the IEC 610002 (ESD) standard with $\pm 30\text{kV}$ air and $\pm 30\text{kV}$ contact discharge. It is assembled into a 3pin DFN20203 package. The leads are finished with NiPdAu. Each device will protect one line. The combination of small size, and high surge capability makes them ideal for use in applications such as cellular phones, LCD displays, USB, and multimedia card interfaces.

● Feature

- ◇ 2000W, 5000W peak pulse power (TP = 8/20 μs)
- ◇ DFN2020 Package
- ◇ Working voltage: 4.5V
- ◇ Low clamping voltage
- ◇ Low capacitance
- ◇ RoHS compliant transient protection for high speed data lines to IEC61000-4-2(ESD) $\pm 30\text{kV}$ (air), $\pm 30\text{kV}$ (contact)

● PIN configuration



Topview

● Applications

- ◇ DVI & HDMI Port Protection
- ◇ Serial and Parallel Ports
- ◇ Projection TV
- ◇ Notebooks, Desktops, Server
- ◇ Solid-state Punch-Through TVS Process technology Portable instrumentation

● Mechanical data

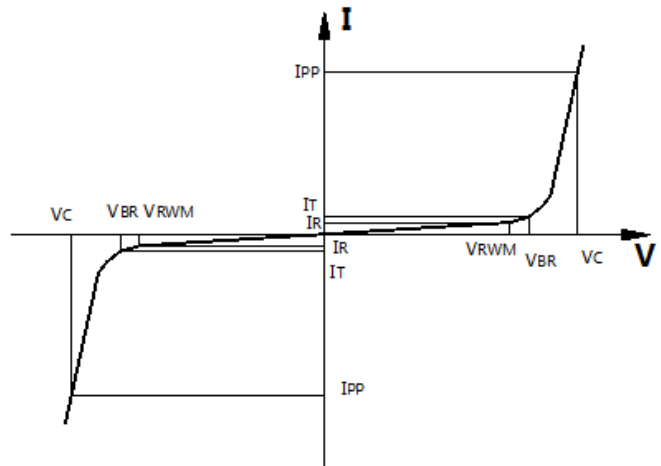
- ◇ Lead finish: 100% matte Sn(Tin)
- ◇ Mounting position: Any
- ◇ Power Supply Protection
- ◇ Industrial Application



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● Electronic Parameter

Symbol	Parameter
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
P_{PP}	Peak Pulse Power
C	Junction Capacitance



● Absolute maximum rating @TA=25°C

Symbol	Parameter	Value	Units
P_{PP}	Peak Pulse Power (8/20 μ S)	2000, 5000W	W
T_{STG}	Storage Temperature	-55/+150	°C
T_J	Operating Temperature	-55/+150	°C

● Electrical Characteristics @TA=25°C

Device	V_{RWM} (V)	$I_R @ V_{RWM}$ (uA)	$V_{BR} @ 1mA$ (Volts) Min	$V_C @ 100A$ (V) Max.	$I_{PP} @ 8/20\mu s$ (Amps) Max.	Capacitance	P_{PP} (W)
						@ $V_R=0V, 1MHz$ (pF) Typ	
SSCT4V512L2	4.5	1	5	9.1	180	800	2000
SSCT4V522L2	4.5	1	5	9.5	350	800	5000



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● Typical Performance Characteristics

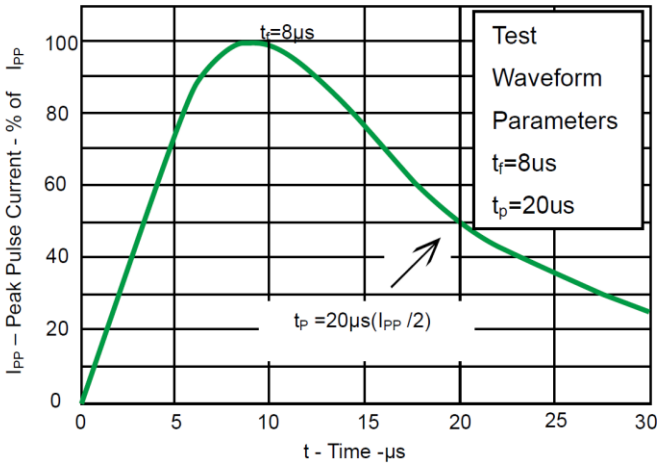


Fig 1. Pulse Waveform

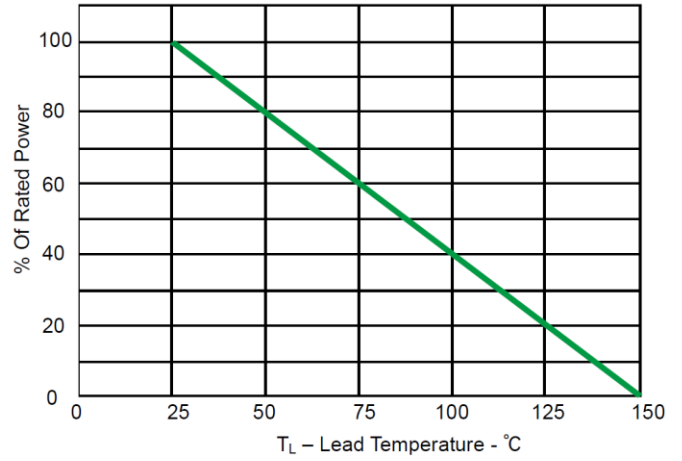
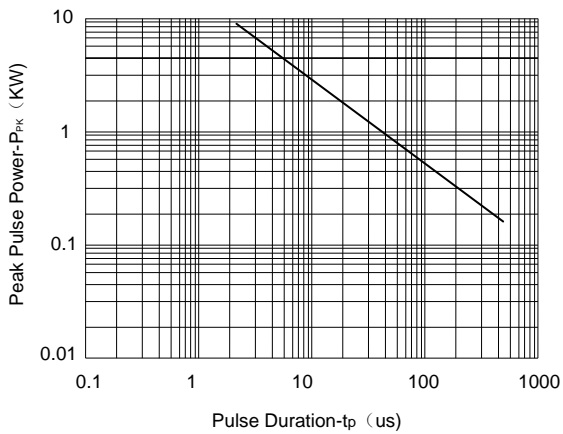


Fig 2. Power Derating Curve



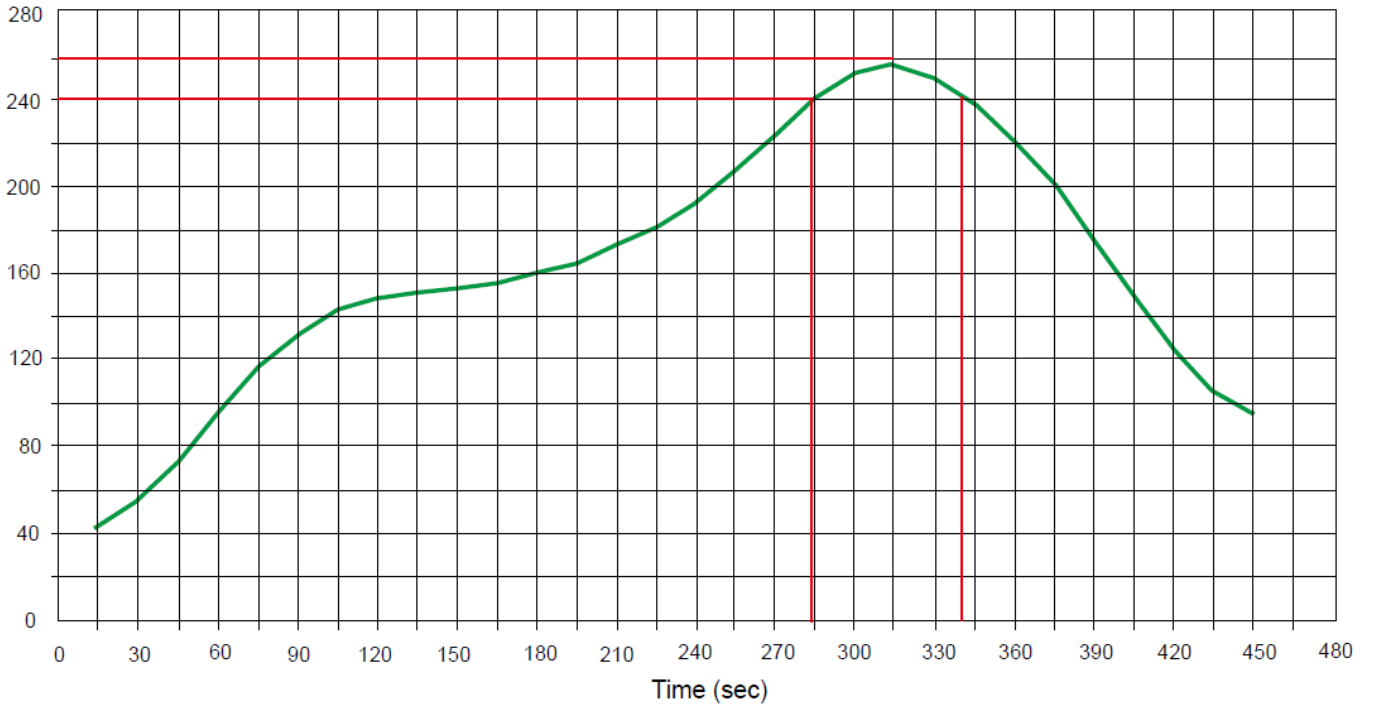
Non-Repetitive Peak Pulse Power vs. Pulse Time



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- Solder Reflow Recommendation

Peak Temp=257°C, Ramp Rate=0.802deg. °C/sec





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● Package Information

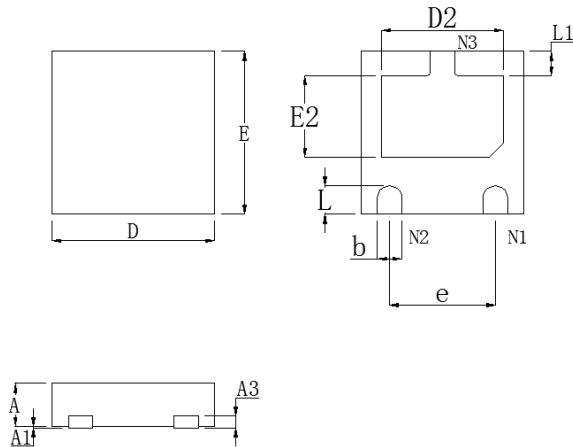
Ordering Information

Device	Package	Qty per Reel	Reel Size
SSCT4V5X2L2	DFN2020-3L	3000	7 Inch

Mechanical Data

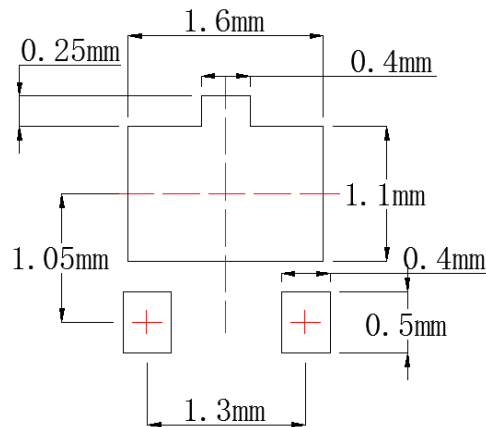
Case: DFN2020

Case Material: Molded Plastic. UL Flammability



DIM	Millimeters		
	Min	Nom	Max
A	0.50	0.55	0.60
A1	0.00	-	0.05
A3	0.15 REF.		
D	1.95	2.00	2.05
E	1.95	2.00	2.05
b	0.25	0.30	0.35
L	0.30	0.35	0.40
L1	0.25	0.30	0.35
D2	1.35	1.50	1.60
E2	0.85	1.00	1.10
e	1.30 BSC		

Recommended Pad outline





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