

SD88205 Unidirectional Discrete TVS

Applications:

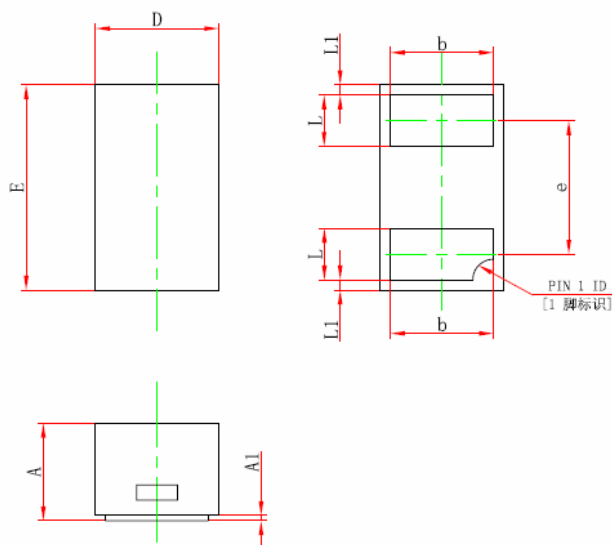
- Mobile phones
- Smart phones
- PDAs
- Portable navigation devices
- Digital cameras
- Portable medical devices

Features:

- ESD, IEC61000-4-2, $\pm 30\text{kV}$ contact, $\pm 30\text{kV}$ air
- EFT, IEC61000-4-4, 40A(5/50ns)
- Lightning, IEC61000-4-5, 7A (8/20 μs)
- Low leakage current of 100nA (MAX) at 5V
- Fits solder footprint of industry standard 0402(1005) devices
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request



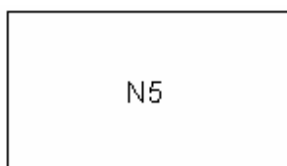
Mechanical Dimensions: In mm/Inches



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.400	0.500	0.016	0.020
A1	0.000	0.050	0.000	0.002
D	0.550	0.650	0.022	0.026
E	0.950	1.050	0.037	0.041
b	0.400	0.600	0.016	0.024
e	0.650TYP.		0.026TYP.	
L	0.150	0.350	0.006	0.014
L1	0.050REF.		0.002REF.	

DFN1.0*0.6*0.5

Marking Diagram:



Where N5 is SD88205

N5 = Part Name

Cautions: Molding resin
Epoxy resin UL:94V-0

Ordering Information:

Device	Package	Shipping
SD88205	DFN1.0*0.6*0.5(Pb-Free)	10000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings and Thermal Information @T_A=25°C unless otherwise specified

Parameter	Symbol	Value	Unit
Peak Pulse Current (tp=8/20 μ s)	I _{pp}	7	A
Maximum Lead Temperature (Soldering 20-40s)	T _L	260	°C
Operating Storage Temperature Range	T _{STG}	-55 to 150	°C
Operating Junction Temperature	T _J	150	°C

Electrical Characteristics($T_J = 25\text{ }^{\circ}\text{C}$)

Characteristics	Symbol	Condition	Min.	Typ.	Max.	Units
Forward Voltage Drop*	V_F	$I_F=10\text{mA}$	-	0.8	1.2	V
Reverse Voltage Drop	V_R	$I_R=1\text{mA}$	6.0	7.8	8.5	V
Reverse Standoff Voltage	V_{RWM}	$I_R=1\mu\text{A}$	-	-	5.0	V
Reverse Leakage Current	I_{LEAK}	$V_R=5\text{V}$	-	-	100	nA
Clamp Voltage(Note 1)	V_C	$I_{pp}=6\text{A}$ $t_p=8/20\mu\text{s}$	-	11.4	-	V
		$I_{pp}=7\text{A}$ $t_p=8/20\mu\text{s}$	-	12.0	-	V
Diode Capacitance(Note 1)	C_D	Reverse Bias=0V	-	30	-	pF

Note: 1 Parameter is guaranteed by design and/or device characterization.

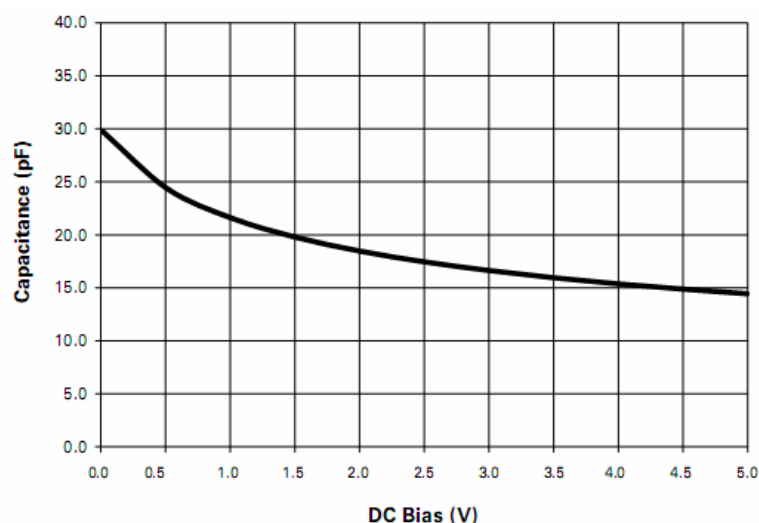


Fig.1-Capacitance vs. Reverse Bias

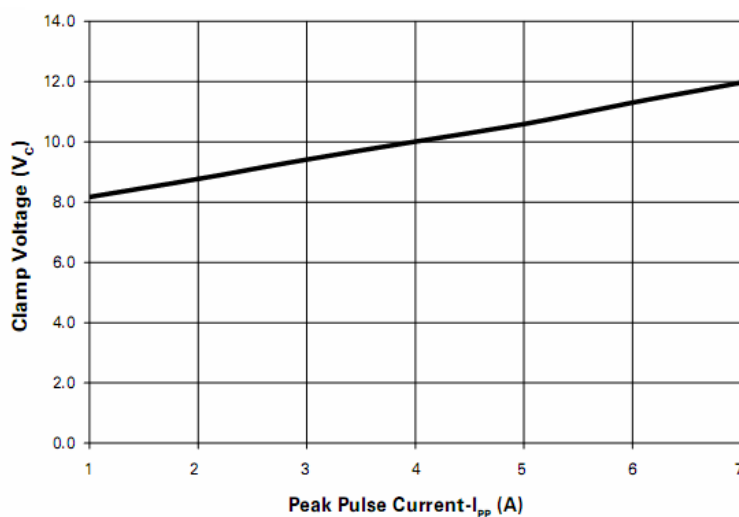


Fig.2-Clamping Voltage vs. IPP

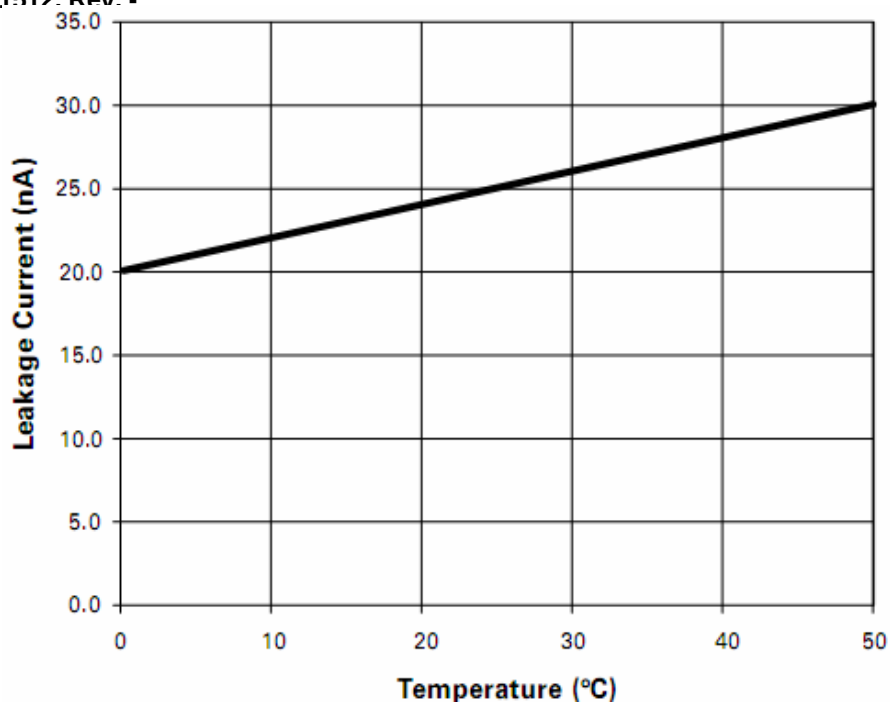


Fig.3-Leakage vs. Temperature

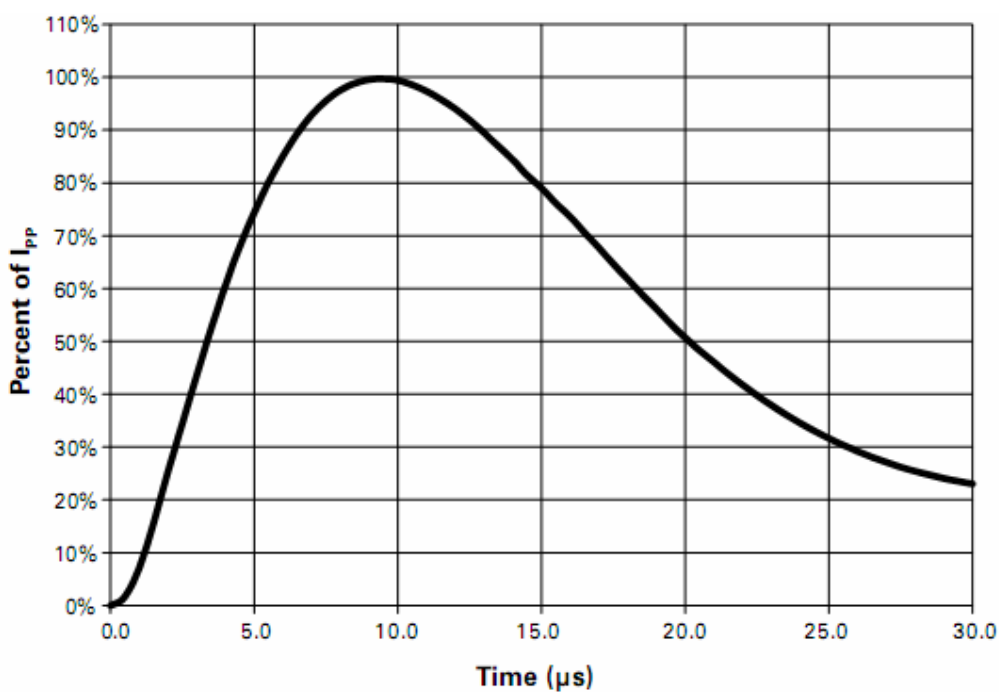


Fig.4-Pulse Waveform

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