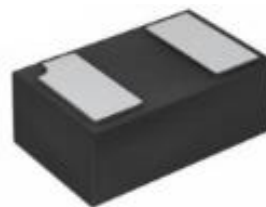


1. Features

- Capacitance: 6pF(typ.)
- Reverse Working Voltage: 5V
- IEC 61000-4-2 (ESD Air): $\pm 15\text{KV}$
IEC 61000-4-2 (ESD Contact): $\pm 15\text{KV}$
IEC 61000-4-5 (Lightning 8/20 μs): 5A

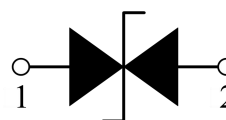
2. Pin Description



3. Applications

- Smart Phone and Tablet PC
- TV and Set Top Box
- Wearable Devices
- PDA

4. Schematic Diagram



5. Order Information

Type	Package	Size (mm)	Delivery Form	Delivery Quantity
SCS212S6	DFN0603	0.60x0.30x0.30	7" T&R	15,000

6. Limiting Values($T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

Symbol	Parameter	Conditions	Min	Max	Unit
V_{ESD}	Electrostatic Discharge Voltage	IEC 61000-4-2; Contact Discharge	-	± 15	kV
		IEC 61000-4-2; Air Discharge	-	± 15	kV
P_{PP}	Peak Pulse Power	$t_P = 8/20\text{ }\mu\text{s}$	-	90	W
I_{PPM}	Rated Peak Pulse Current	$t_P = 8/20\text{ }\mu\text{s}$	-	5	A
T_A	Ambient Temperature Range	-	-55	125	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-	-55	150	$^{\circ}\text{C}$

7. Electrical Characteristics($T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
V_{RWM}	Reverse Working Voltage	$T_A = 25\text{ }^{\circ}\text{C}$	-	-	5.0	V
V_{BR}	Breakdown Voltage	$I_R = 1\text{ mA}$	6.0	-	-	V
I_R	Reverse Leakage Current	$V_{\text{RWM}} = 5\text{ V}$	-	-	0.1	μA
V_C	Clamping Voltage	$I_{\text{PP}} = 1\text{ A}, t_P = 8/20\text{ }\mu\text{s}$	-	-	9.5	V
		$I_{\text{PP}} = 5\text{ A}, t_P = 8/20\text{ }\mu\text{s}$	-	13	15	V
C_L	Line Capacitance	$V_R = 0\text{ V}, f = 1\text{ MHz}$	-	6	-	pF

8. Typical Characteristics

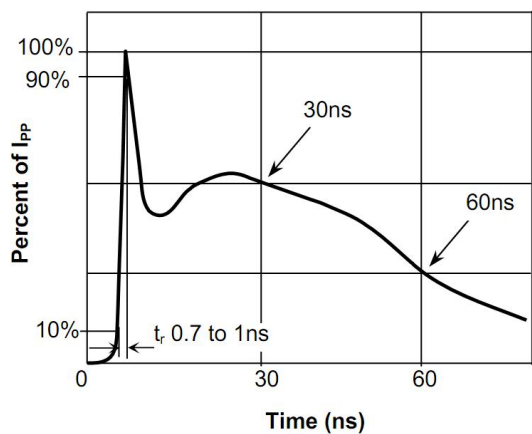


Fig.1 Pulse Waveform-ESD(IEC61000-4-2)

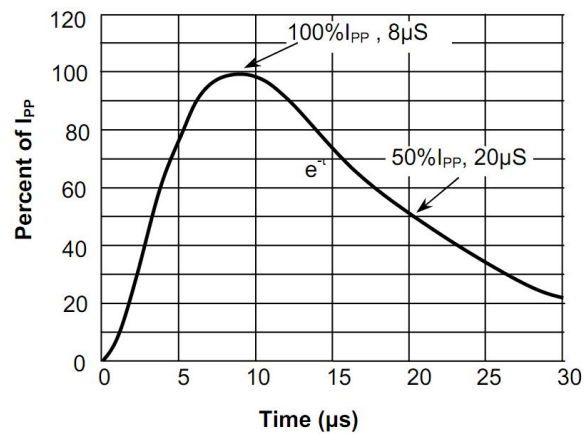


Fig.2 Pulse Waveform-8/20 μ s

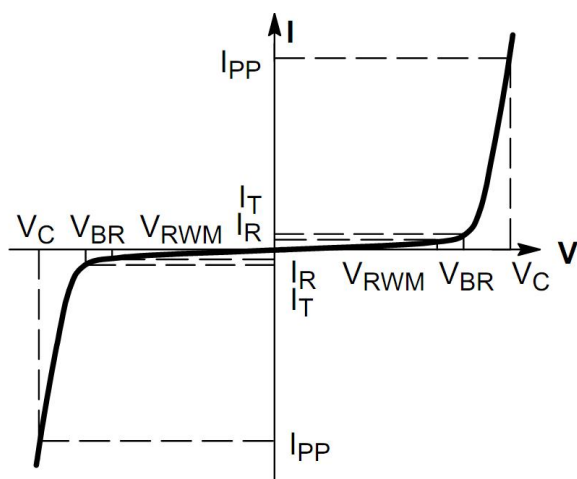


Fig.3 V-I Characteristics for Bidirectional Diode

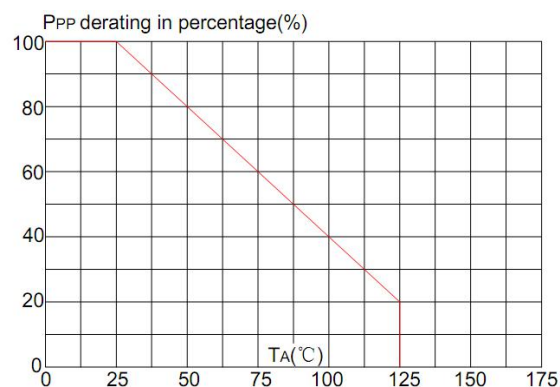
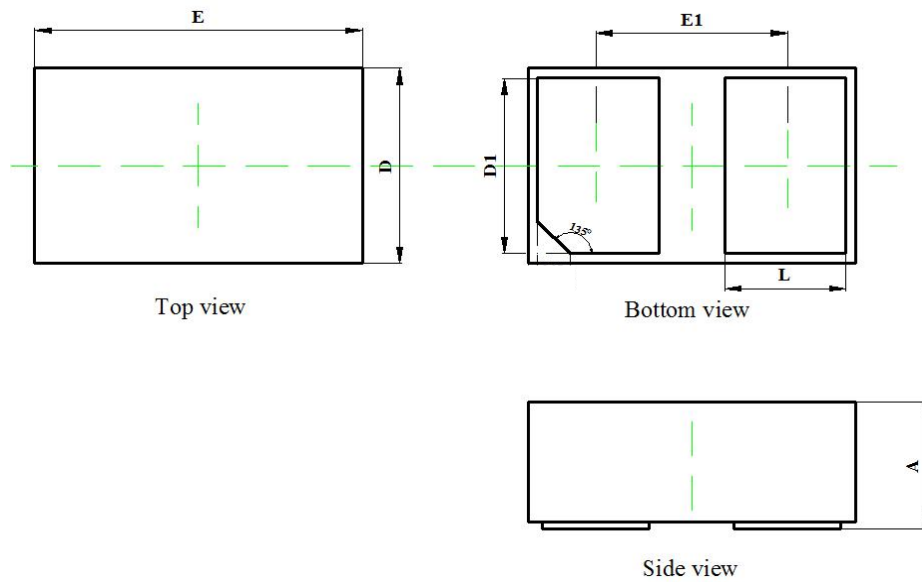


Fig.4 Power Derating Curve

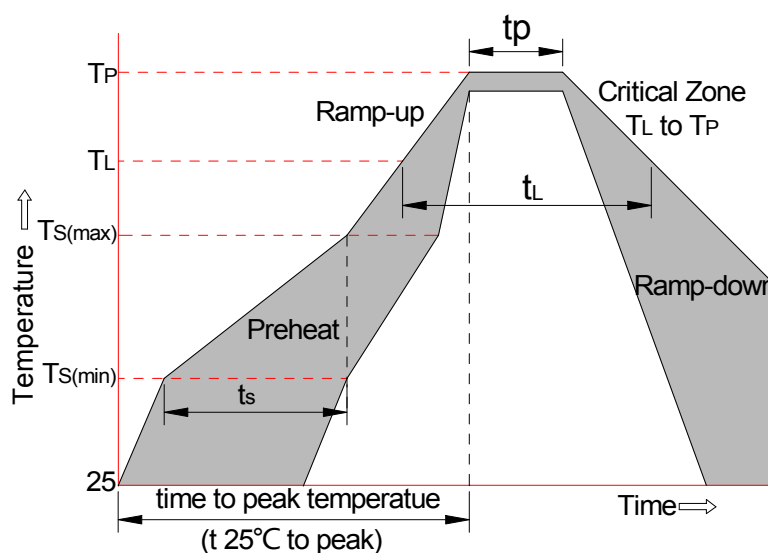
9. Package Outline Dimensions

DFN0603 Package Outline (Sizes in mm)



Symbol	Dimensions In Millimeters	
	Min	Max
A	0.230	0.330
D	0.250	0.350
E	0.550	0.650
D1	0.200	0.300
E1	0.350	
L	0.070	0.170

10. Soldering Parameters



Reflow Condition		Pb-Free Assembly
Pre-heat	-Temperature Min (T _{S(min)})	+150°C
	-Temperature Max(T _{S(max)})	+200°C
	-Time (Min to Max) (t _s)	60-180 secs.
Average ramp up rate (Liquid us Temp (T _L) to peak)		3°C/sec. Max
T _{S(max)} to T _L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(T _L)(Liquid us)	+217°C
	-Temperature(t _L)	60-150 secs.
Peak Temp (T _P)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t _p)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
xTime 25°C to Peak Temp (T _P)		8 min. Max
Do not exceed		+260°C