

RoHS Compliant Product
 A suffix of "-C" specifies halogen and lead-free

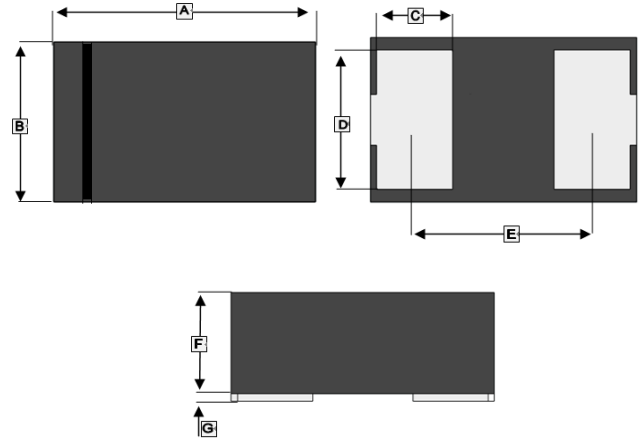
DESCRIPTION

The SBESD9N5C is a transient voltage suppressors (TVS) which provide a very high level protection for sensitive electronic components that may be subjected to electrostatic discharge (ESD). It is designed to replace multiplayer varistors (MLV) in consumer equipments applications such as mobile phone, notebook, PAD, STB, LCD TV etc.

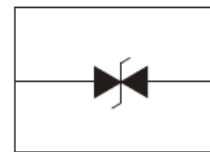
The SBESD9N5C was past ESD transient voltage up to $\pm 12\text{KV}$ (contact) according to IEC61000-4-2 and withstand peak current up to 3A for 8/20us pulse according to IEC61000-4-5.

The SBESD9N5C is available in DFN1006-2L package. Standard products are Pb-free and Halogen-free.

DFN1006-2L



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	0.95	1.05	E	0.65 TYP.	
B	0.55	0.65	F	0.3	0.4
C	0.2	0.3	G	0.00	0.05
D	0.45	0.55			



Bi-direction

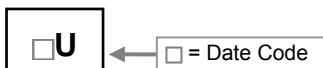
APPLICATIONS

- Mobile phone
- PAD
- Notebook
- LCD TV
- Other electronics equipments

FEATURES

- Ultra-low clamping voltage
- Low leakage current
- Small package

MARKING



PACKAGE INFORMATION

Package	MPQ	Leader Size
DFN1006-2L	10K	7 inch

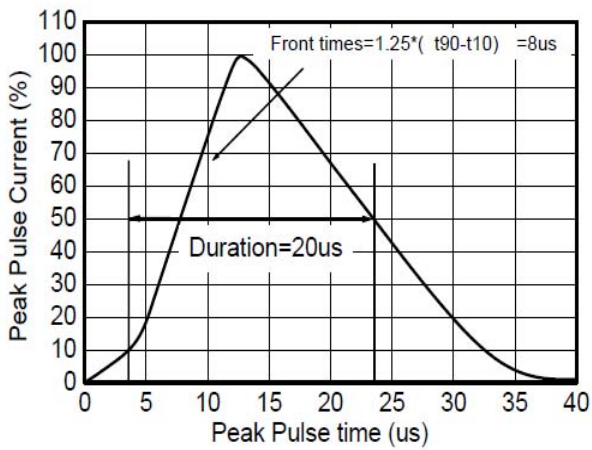
ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Rating	Symbol	Value	Unit
IEC 61000-4-2 (ESD)	Air contact	± 15	kV
	Contact discharge	± 12	
Peak pulse power ($t_p=8/20\mu\text{s}$)	P_{PK}	48	W
Peak pulse current ($t_p=8/20\mu\text{s}$)	I_{PP}	3	A
Storage temperature range	T_J, T_{STG}	125, -55 ~ 150	$^\circ\text{C}$
Lead temperature	T_L	260	$^\circ\text{C}$

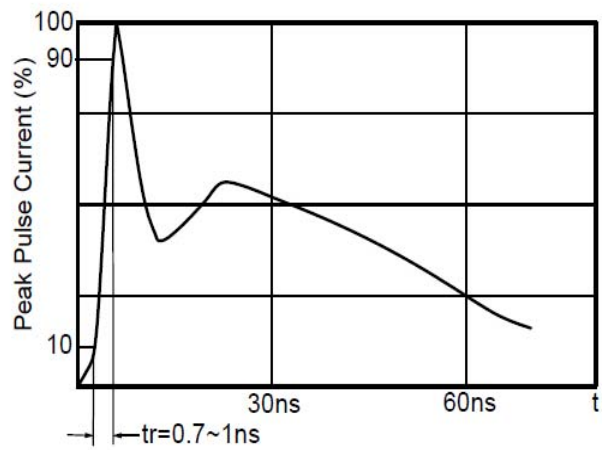
ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Reveres maximum working voltage	V_{RWM}		-	-	5	V
Reveres leakage current	I_R	$V_{RWM}=5\text{V}$	-	-	1	μA
Reveres breakdown voltage	V_{BR}	$I_T=1\text{mA}$	7	8.5	10	V
Clamping Voltage	V_C	$I_{PP}=1\text{A}$, $t_p=8/20\mu\text{s}$	-	-	11.5	V
		$I_{PP}=3\text{A}$, $t_p=8/20\mu\text{s}$	-	-	16	V
Junction capacitance	C_J	$f=1\text{MHz}$, $V_R=0$	-	0.45	0.7	pF

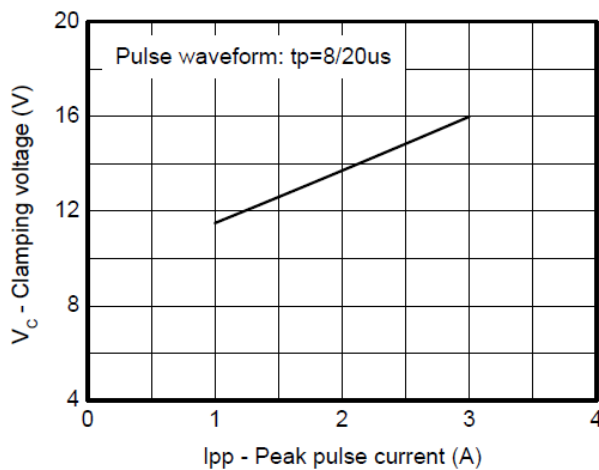
RATINGS AND CHARACTERISTICS CURVES



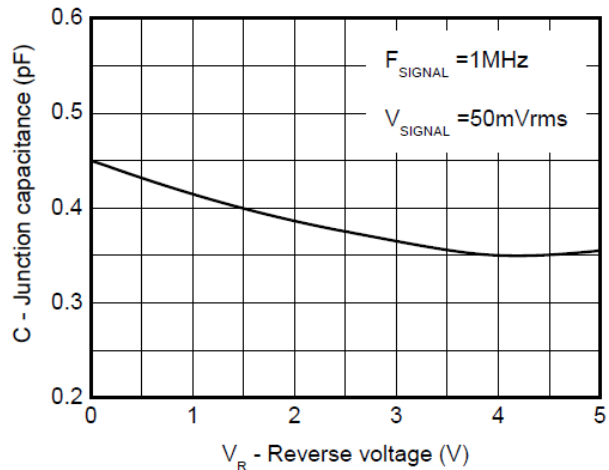
8/20us waveform



IEC61000-4-2 waveform

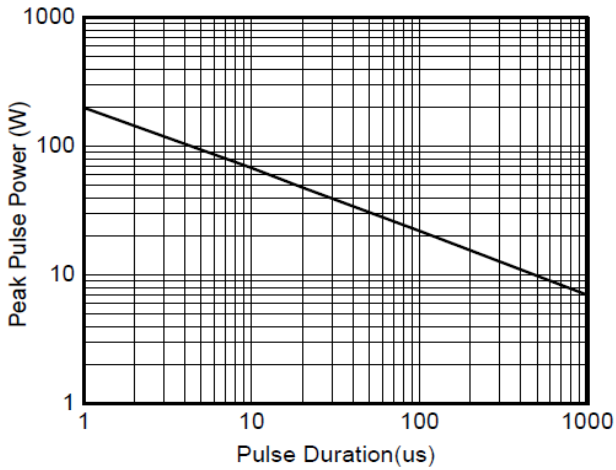


Clamping voltage vs. Peak pulse current

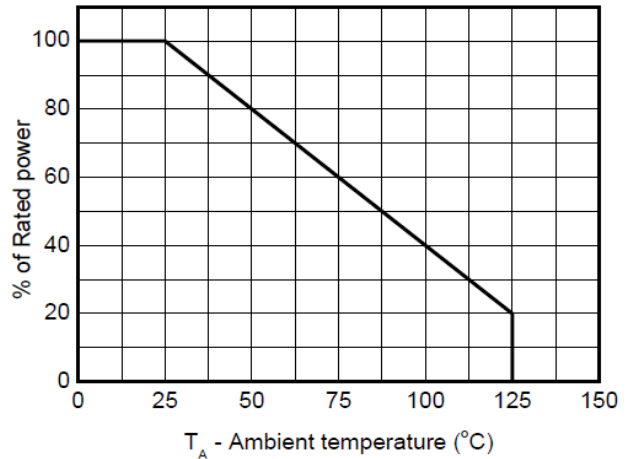


Capacitance vs. Reverses voltage

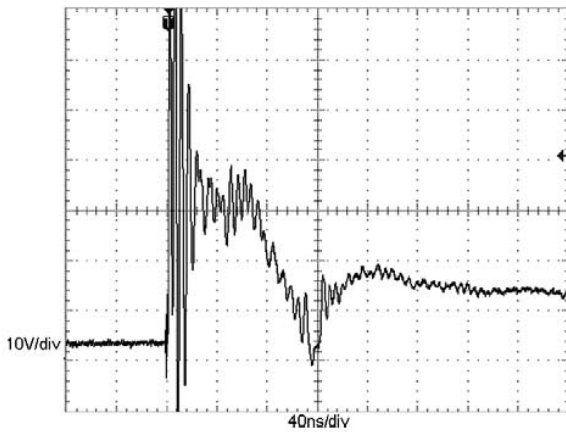
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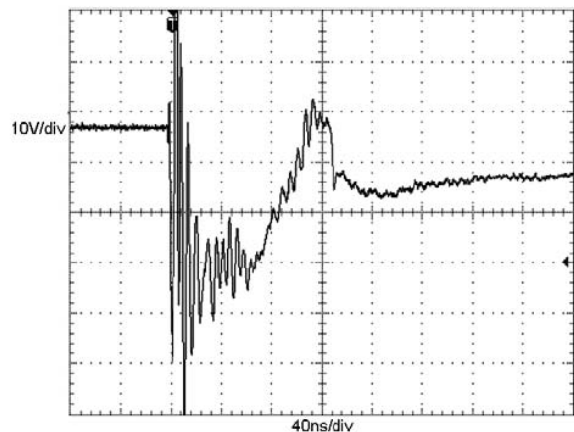
Non-Repetitive Peak Pulse Power vs. Pulse time



Power derating vs. Temperature



**ESD clamping voltage
(IEC61000-4-2 +12KV contact)**



**ESD clamping voltage
(IEC61000-4-2 -12KV contact)**