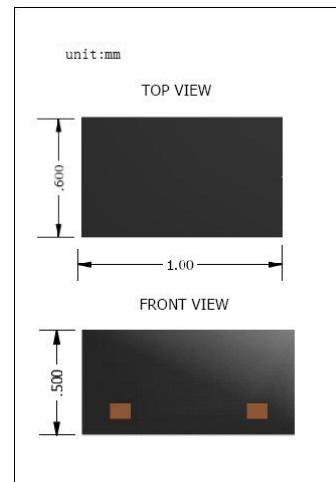
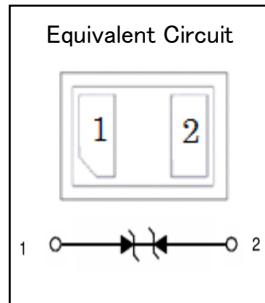


- ◊ Bi-Directional Transient Voltage Suppressor
- ◊ Low Capacitance and Low Leakage
- ◊ Response Time is Typically < 1 ns
- ◊ IEC61000-4-2 Level 4 ESD Protection
- ◊ ROHS Compliant
- ◊ UL-94 V-0 / Green EMC
- ◊ Matte Tin Lead finish (Pb-Free)

Device Marking Code	
ESD8D5.0CAT5G	AK



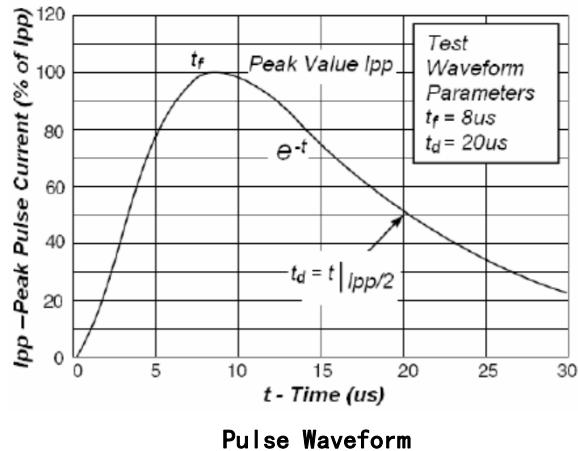
MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

Symbol	Parameter	Value	Units
$V_{\text{ESD-Air}}$	ESD Voltage IEC61000-4-2 Air	± 25	kV
$V_{\text{ESD-Contact}}$	ESD Voltage IEC61000-4-2 Contact	± 20	kV
PD	Total Power Dissipation on FR-5 Board	200	mW
T_J	Junction Temperature	-55 to 150	$^\circ\text{C}$
TSTG	Storage Temperature	-55 to 150	$^\circ\text{C}$
TL	Lead Solder Temperature – Maximum (10 Second Duration)	260	$^\circ\text{C}$

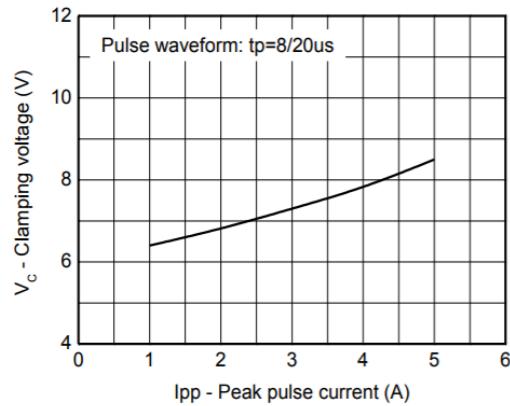
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Conditions	Min	Typ	Max	Units
V_{RWM}	Reverse Working Peak Voltage				5.0	V
V_{BR}	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	5.6		8.0	V
I_{R1}	Reverse Current	$V_{\text{RWM}} = 5\text{V}$			0.5	μA
I_{R2}	Reverse Current	$V_R = 3.5\text{V}$			0.3	μA
V_c	Clamping Voltage	$I_{\text{pp}} = 1\text{A}$			9.8	V
V_c	Clamping Voltage	$I_{\text{pp}} = 5.5\text{A}$			12.5	V
C	Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$			15	pF

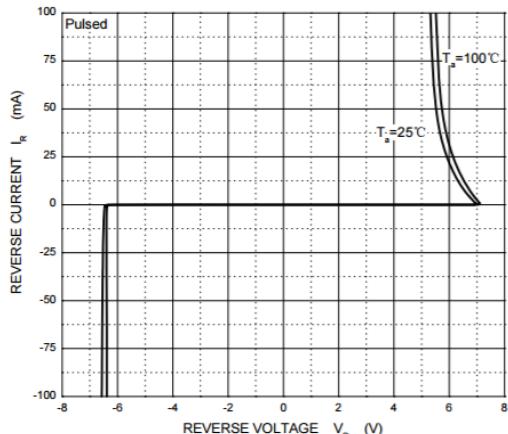
Typical Characteristics



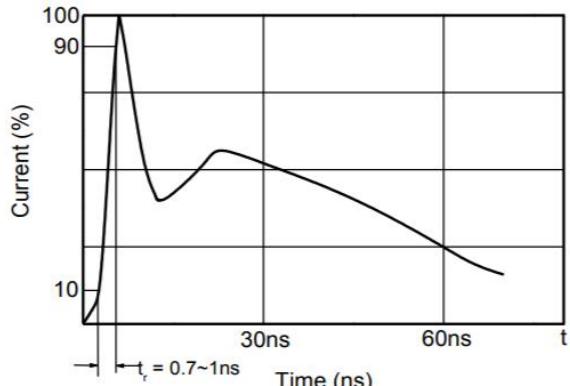
Pulse Waveform



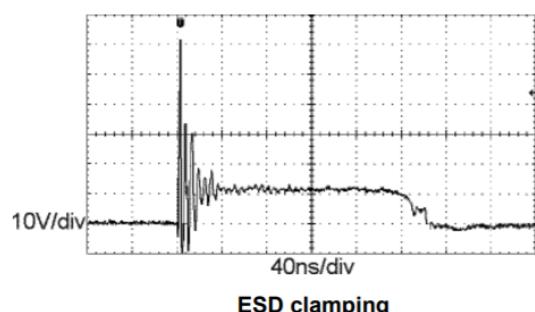
Clamping voltage vs. Peak pulse current



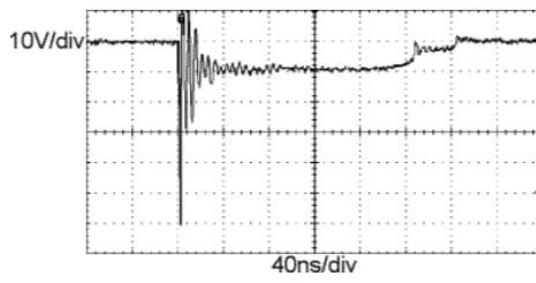
Reverse Characteristics



Contact discharge current waveform per IEC61000-4-2



ESD clamping
(+8kV contact discharge per IEC61000-4-2)

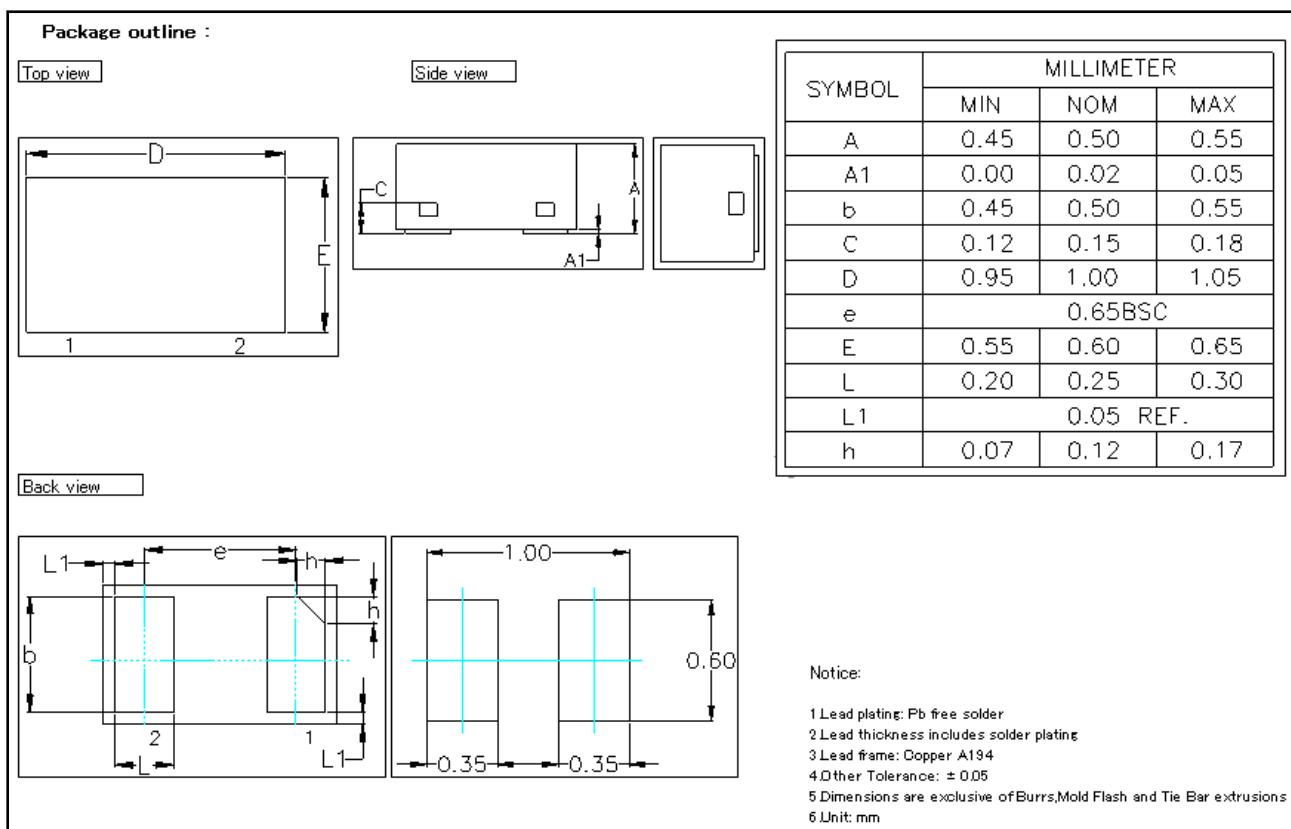


ESD clamping
(-8kV contact discharge per IEC61000-4-2)

ORDERING INFORMATION

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
ESD8D5.0CAT5G	SOD-882	Tape & Reel 10000pcs /7" Reel	8mm	4mm	Conductive	

PACKAGE DIMENSIONS



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