

Small Signal Product

5V, 2-Channels ESD Protection Array

FEATURES

- Meet IEC61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact)
- Protects two I/O lines and power line
- Low leakage, low operating and clamping voltage
- Low capacitance ($< 0.9\text{pF}$) for high-speed interfaces
- Pb free version and RoHS compliant
- Packing code with suffix "G" means green compound (halogen-free)

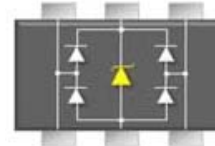


SOT-563



MECHANICAL DATA

- Case: SOT-563 small outline plastic package
- Terminal: Matte tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- High temperature soldering guaranteed : $260^{\circ}\text{C}/10\text{s}$
- Weight: $3 \pm 0.5 \text{ mg}$
- Marking code: 2A



APPLICATIONS

- Cellular Handsets and Accessories
- Cordless Phones
- Monitors and Flat Panel Displays
- Digital Cameras
- MP3 Players

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power (tp=8/20 μs waveform)	P_{PP}	50	W
Peak Pulse Current (tp=8/20 μs)	I_{PP}	3	A
Reverse Peak Pulse Current (tp=8/20 μs)	I_{PPR}	1	μA
ESD per IEC 61000-4-2 (Air)	V_{ESD}	± 15	KV
ESD per IEC 61000-4-2 (Contact)		± 8	
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^{\circ}\text{C}$

PARAMETER	SYMBOL	MIN	MAX	UNIT
Reverse Stand-Off Voltage	V_{RWM}	-	5	V
Reverse Breakdown Voltage	$V_{(BR)}$	6	-	V
Reverse Leakage Current			I_R	
Clamping Voltage	V_C	-	9.8	V
		-	16	
Junction Capacitance	C_J	0.9		pF

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RATINGS AND CHARACTERISTICS CURVES

($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig. 1 Non-Repetitive Peak Pulse Power VS. Pulse Time

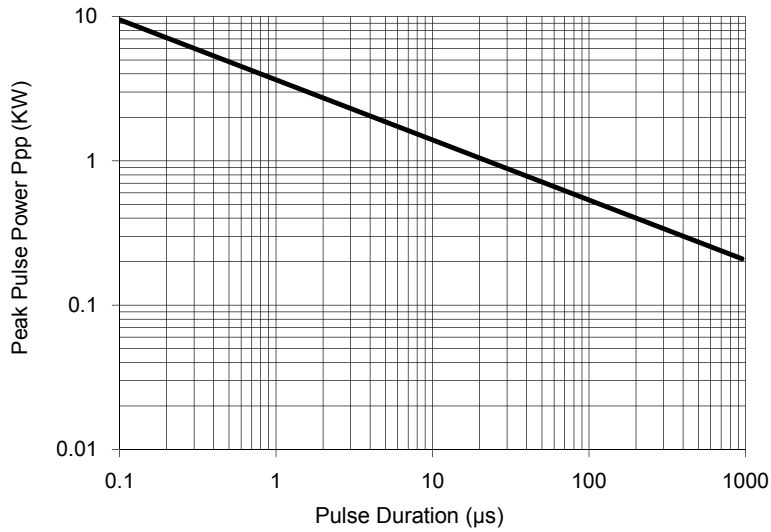


Fig. 2 Pulse Waveform

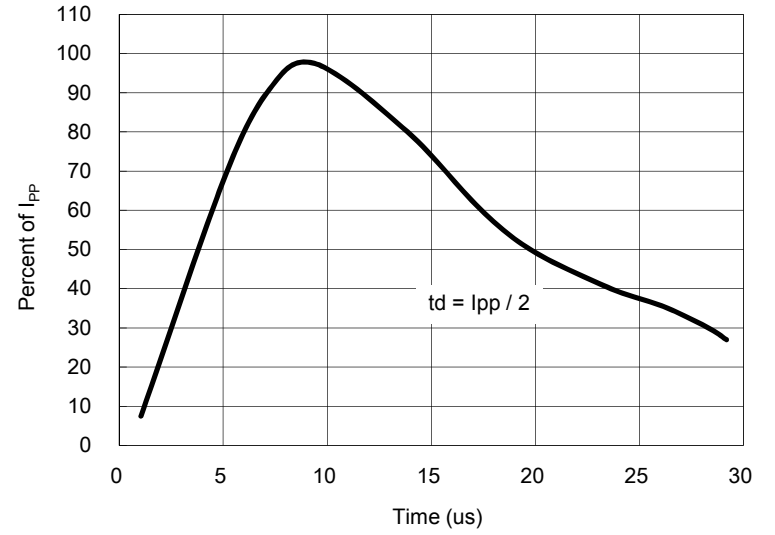


Fig. 3 Admissible Power Dissipation Curve

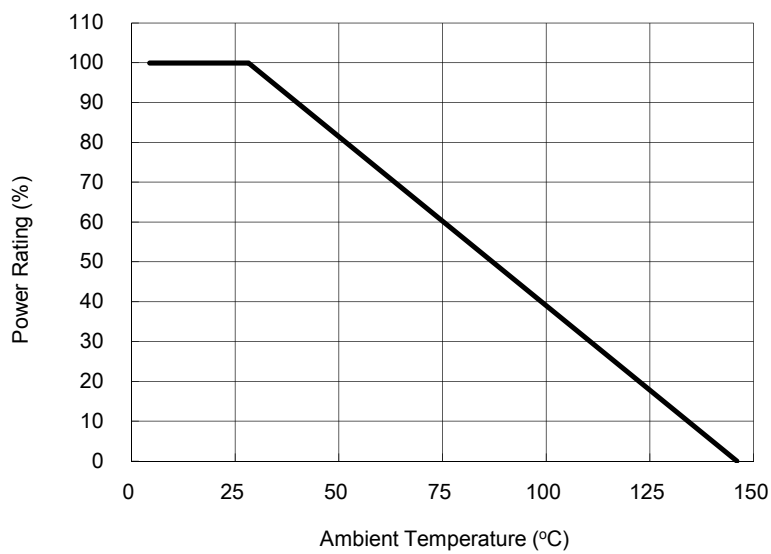


Fig. 4 Typical Junction Capacitance

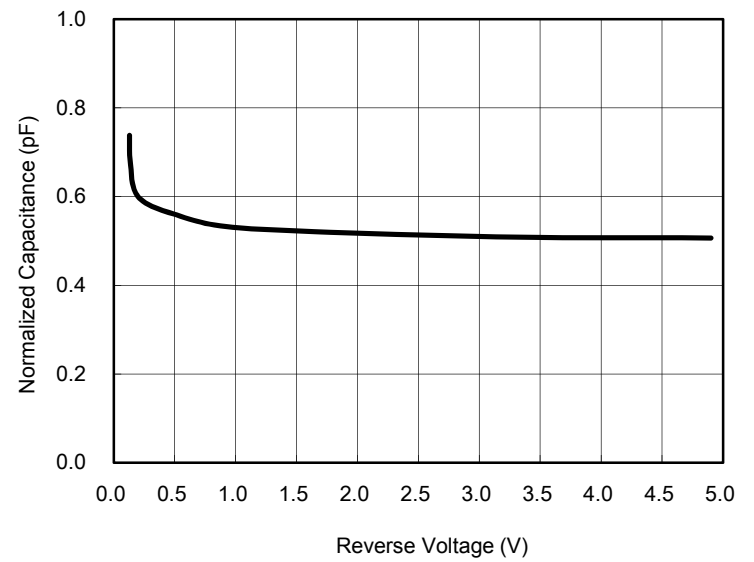
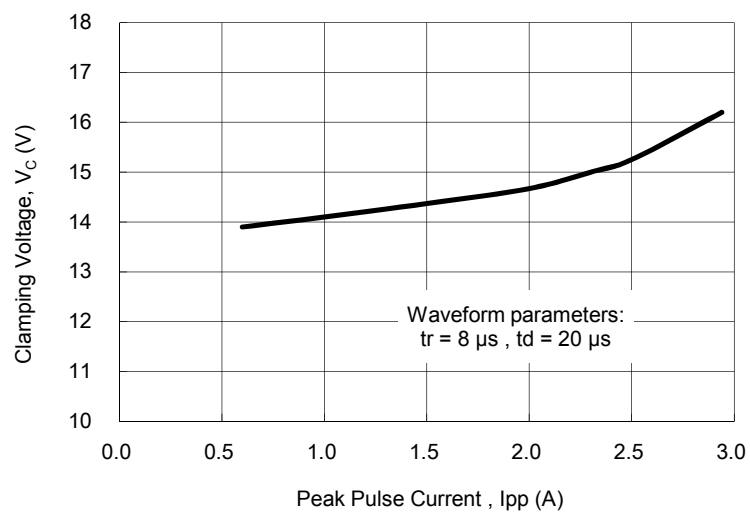


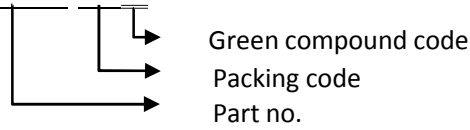
Fig. 5 Clamping Voltage VS. Peak Pulse Current



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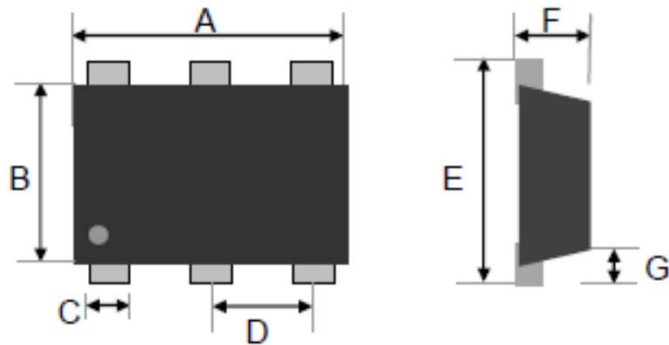
ORDER INFORMATION (EXAMPLE)

TESDG5V0A RFG



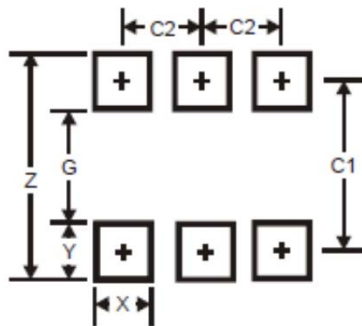
PACKAGE OUTLINE DIMENSIONS

SOT-563



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.50	1.70	0.059	0.067
B	1.10	1.30	0.043	0.051
C	0.17	0.27	0.007	0.011
D	0.50 BSC		0.020 BSC	
E	1.50	1.70	0.059	0.067
F	0.50	0.60	0.020	0.024
G	0.20	0.40	0.008	0.016

SUGGEST PAD LAYOUT



DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
Z	2.200	0.087
G	1.200	0.047
X	0.375	0.015
Y	0.500	0.020
C1	1.700	0.067
C2	0.500	0.020

Note: 1. The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application.

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