

Small Signal Diode



Features

- ✧ IEC61000-4-2 rating. $\pm 16\text{KV}$ (Air), $\pm 8\text{KV}$ (Contact)
- ✧ Protect 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
- ✧ Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code

Mechanical Data

- ✧ Case : SOT-563 package, molded plastic
- ✧ Terminal: Matte tin plated, lead free, solderable per MIL-STD-202, Method 202 guaranteed
- ✧ High temperature soldering guaranteed: $260^\circ\text{C}/10\text{s}$
- ✧ Weight: 0.003 gram (approx.)
- ✧ Marking Code : 2A

Applications

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

Ordering Information

Part No.	Package code	Package	Packing	Marking
TESDG5V0A	RFG	SOT-563	3K / 7" Reel	2A

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

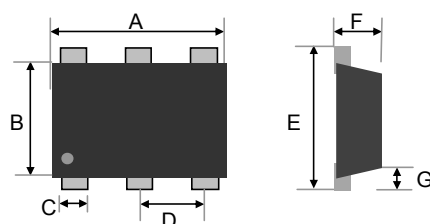
Maximum Ratings

Type Number	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu\text{s}$)	P_{PP}	50	W
Peak Pulse Current ($t_p = 8/20\mu\text{s}$)	I_{PP}	3	A
Reverse Peak Pulse Current ($t_p = 8/20\mu\text{s}$)	I_{PPR}	1	μA
ESD per IEC 61000-4-2 (Air)	V_{ESD}	± 15	V
ESD per IEC 61000-4-2 (Contact)		± 8	
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to + 150	$^\circ\text{C}$

Electrical Characteristics

Type Number	Symbol	Min	Max	Units
Working Voltage	V_{RWM}	-	5	V
Reverse Breakdown Voltage	$I_R = 1\text{mA}$ $V_{(BR)}$	6	-	V
Reverse Leakage Current	$V_R = 5\text{V}$ I_R	-	1	μA
Clamping Voltage	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$ $I_{PP} = 3\text{A}, t_p = 8/20\mu\text{s}$ V_C	-	9.8 16.0	V
Junction Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$ C_J	0.9(Typ.)		pF

SOT-563



Dimensions	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		0.02 BSC	
E	1.50	1.70	0.059	0.067
F	0.50	0.60	0.020	0.024

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Rating and Sharacteristic Curves

FIG 1 Non-Repetitive Peak Pulse Power vs. Pulse

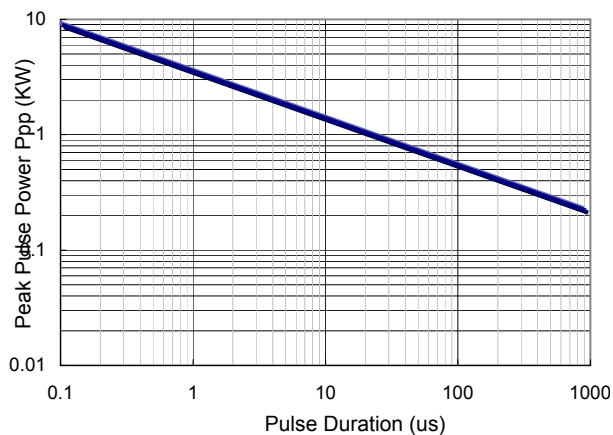


FIG 2 Pulse Waveform

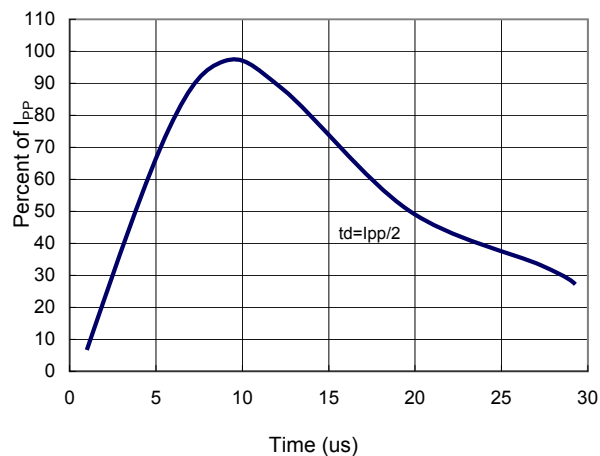


FIG 3 Admissible Power Dissipation Curve

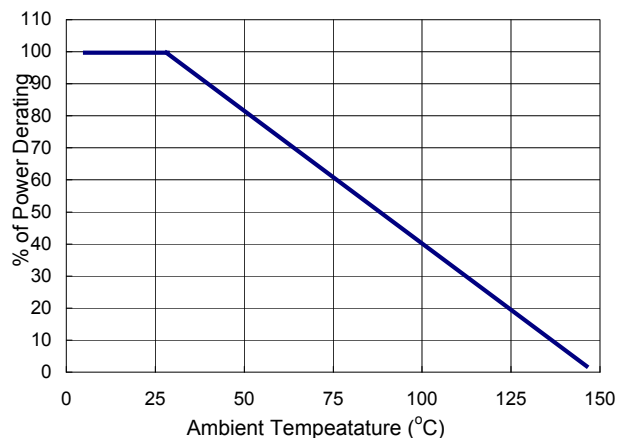


FIG 4 Typical Junction Capacitance

