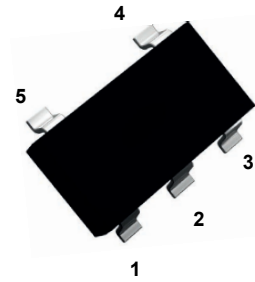


Features

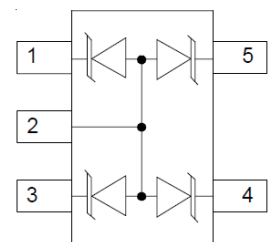
- Low leakage current
- Operating voltage: 5V
- Low clamping voltage
- JEDEC SOT-353 package
- Complies with following standards:
-IEC 61000-4-2 (ESD) immunity test
Air discharge: $\pm 30\text{kV}$
Contact discharge: $\pm 30\text{kV}$
-IEC61000-4-5 (Lightning) 8A (8/20 μs)



SOT-353

Applications

- Peripherals
- Industrial equipment
- Notebook computers
- Portable instrumentation
- Microprocessor based equipment
- Cell phone handsets and accessories
- Personal digital assistants (PDAs) and pagers



Schematic Diagram

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P_{PK}	100	W
Peak Pulse Current (8/20 μs)	I_{PP}	8	A
ESD per IEC 61000-4-2 (Air)	V_{ESD}	± 30	kV
ESD per IEC 61000-4-2 (Contact)		± 30	
Operating Temperature Range	T_J	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}	-	-	-	5	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	6	-	8.5	V
Reverse Leakage Current ¹	I_R	$V_{RWM}=5\text{V}$, any I/O pin to ground	-	-	0.2	μA
Clamping Voltage ¹	V_C	$I_{PP}=1\text{A}$ (8 x 20 μs pulse), any I/O pin to ground	-	-	9	V
		$I_{PP}=8\text{A}$ (8 x 20 μs pulse), any I/O pin to ground	-	-	12	V
Junction Capacitance ¹	C_J	$V_R=0\text{V}$, $f=1\text{MHz}$, any I/O pin to ground	-	60	-	pF

Note:

1. I/O pins are pin 1, 3, 4, 5.

Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)

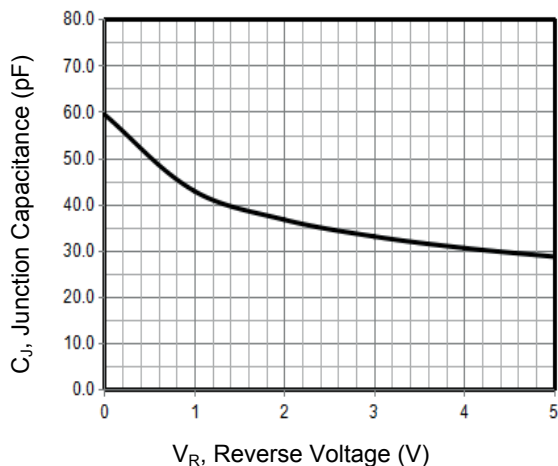


Figure 1. Junction Capacitance vs. Reverse Voltage

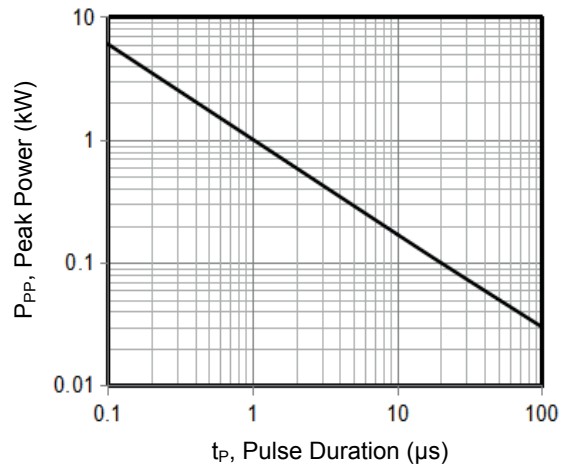


Figure 2. Peak Pulse Power vs. Pulse Time

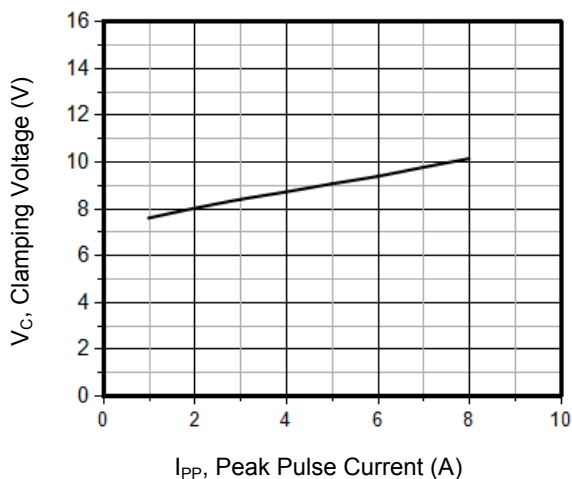


Figure 3. Clamping Voltage vs. Peak Pulse Current

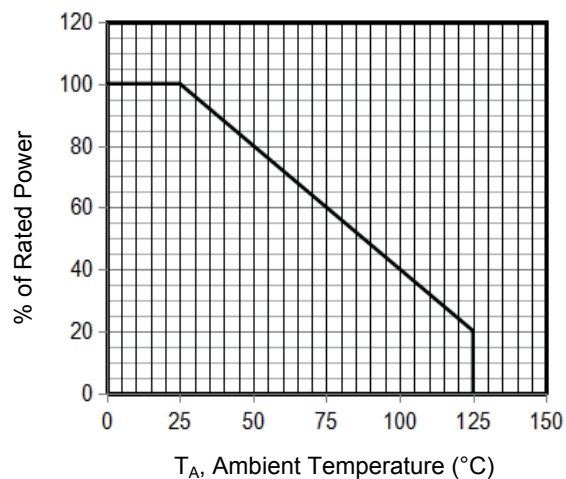


Figure 4. Power Derating Curve

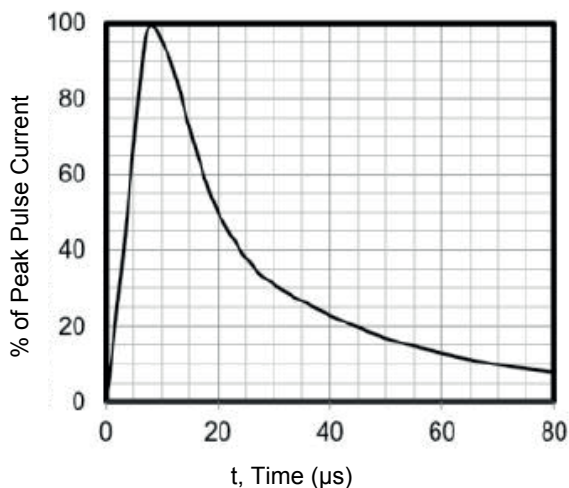
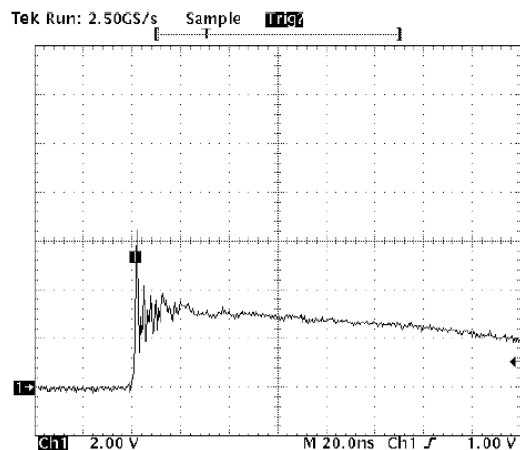


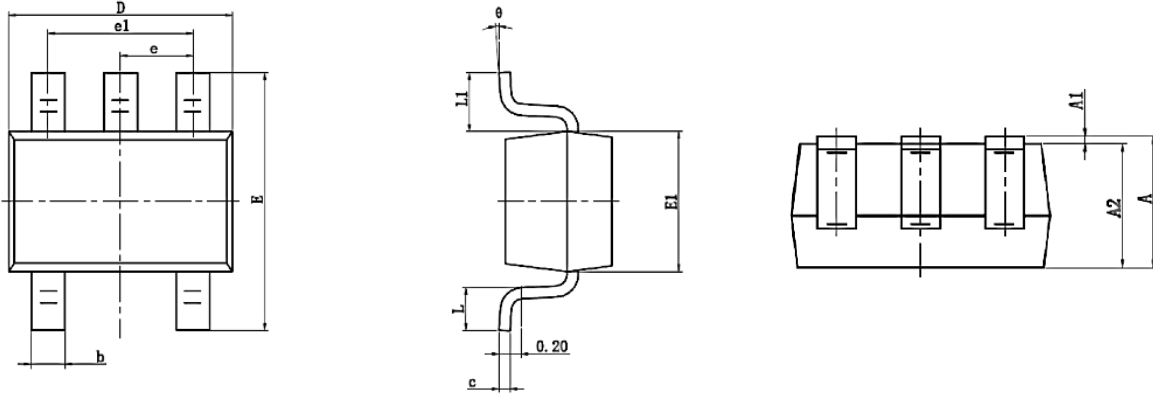
Figure 5. 8 X 20 μs Pulse Waveform



Note: Data is taken with a 10x attenuator

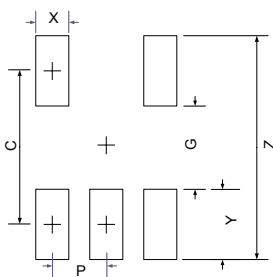
Figure 6. ESD Clamping Voltage
8kV Contact per IEC61000-4-2

Package Outline Dimensions (SOT-353)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.150	0.350	0.006	0.014
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	2.150	2.450	0.085	0.096
E1	1.150	1.350	0.045	0.053
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.260	0.460	0.010	0.018
L1	0.525 REF		0.021 REF	
θ	0°	8°	0°	8°

Recommended Pad Layout



Symbol	Dimensions	
	Millimeters	Inches
C	1.85	0.073
G	1.00	0.039
P	0.65	0.026
X	0.40	0.016
Y	0.85	0.033
Z	2.70	0.106

Order Information

Device	Package	Marking	Carrier	Quantity
GSEK5U600	SOT-353	F05	Tape & Reel	3,000pcs / Reel

For more information, please contact us at: inquiry@goodarksemi.com