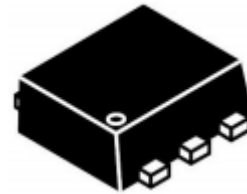


Features

- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 25\text{kV}$
 - Contact discharge: $\pm 15\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- RoHS Compliant

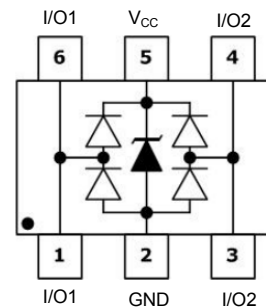
Dimensions SOT-563



Applications

- Ethernet Interface
- Switchin Systems
- Access Equipment
- Central Of fice Equipment
- Customer Premise Equipment
- Microcontroller Input Protection

Pin Configuration



Mechanical Characteristics

- Package: SOT-563
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel:3,000pcs
- Reel Size:7inch
- Device Marking: 2A

Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	Ppp	150	W
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	°C
Storage Temperature Range	T _{STJ}	-55 to +150	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$, I/O to GND	6	7	10	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$, V_{CC} to GND	6	7	12	V
Reverse Leakage Current	I_R	$V_{RWM} = 5\text{V}$, I/O to GND & V_{CC} to GND			0.1	μA
Forward Voltage	V_F	$I_F = 15\text{mA}$, I/O to GND & V_{CC} to GND			1.2	V
Clamping Voltage	V_C	$I_{PP} = 1\text{A}$, $t_P = 8/20\mu\text{s}$, I/O to GND & V_{CC} to GND			13	V
Clamping Voltage	V_C	$I_{PP} = 5\text{A}$, $t_P = 8/20\mu\text{s}$, I/O to GND			15	V
Clamping Voltage	V_C	$I_{PP} = 10\text{A}$, $t_P = 8/20\mu\text{s}$, V_{CC} to GND			15	V
Junction Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$, I/O to GND			0.6	pF
Junction Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$, I/O to I/O			0.3	pF

TYPIC CHARACTERISTICS

Fig. 1 - 8 X 20 μ s Pulse Waveform

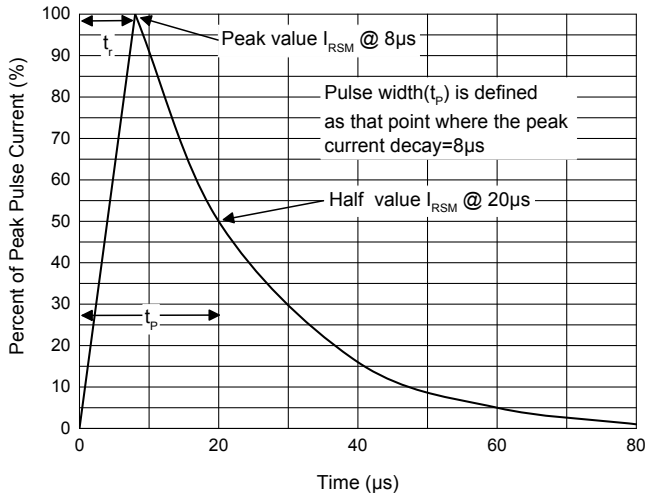


Fig. 2 - Pulse Derating Curve

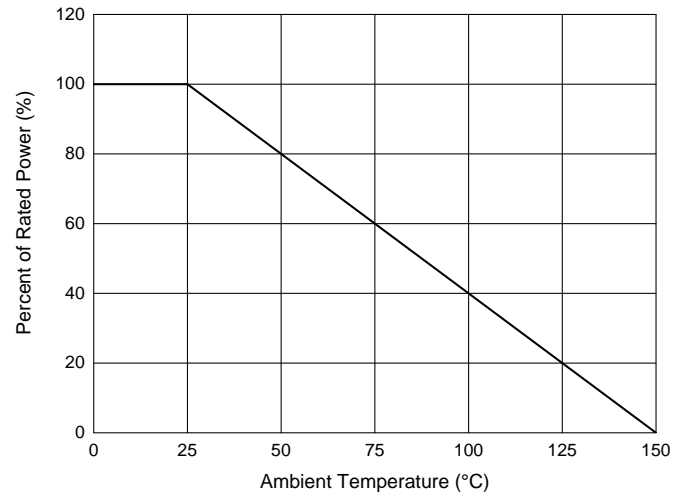


Fig. 3 - Capacitance Characteristics

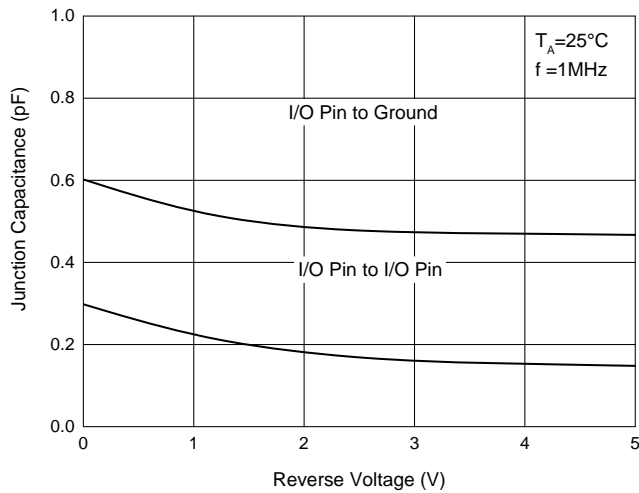
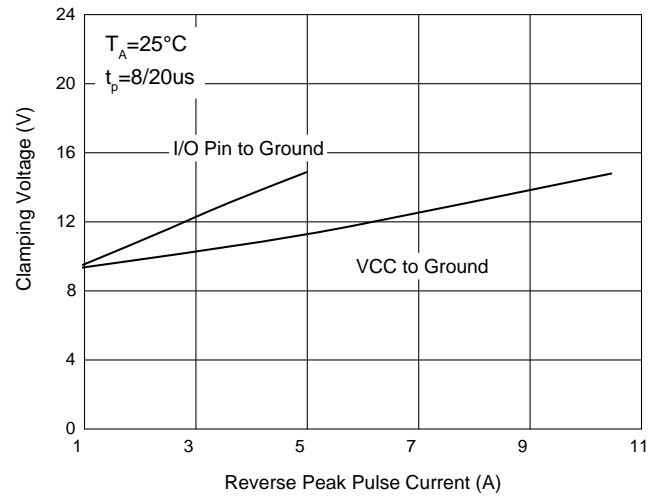
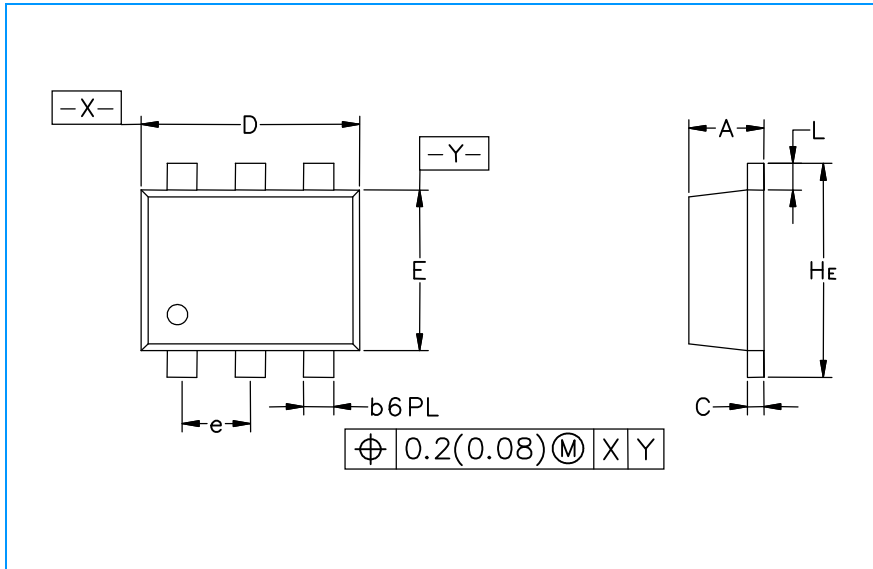


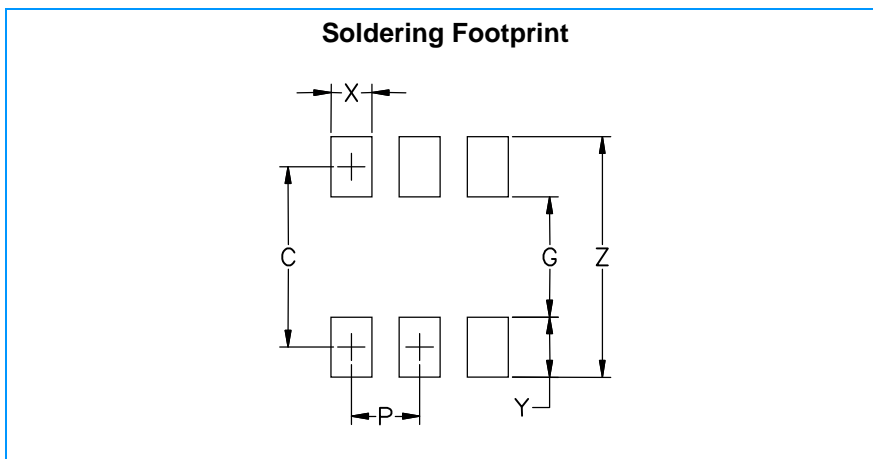
Fig. 4 - Clamping Voltage Characteristics



SOT-563 Package Outline & Dimensions



Symbol	Inches			Millimeters		
	Min.	Nom.	Max.	Min.	Nom.	Max.
A	0.020	0.021	0.023	0.50	0.55	0.60
b	0.007	0.009	0.011	0.17	0.22	0.27
C	0.003	0.005	0.007	0.08	0.12	0.18
D	0.059	0.062	0.066	1.50	1.60	1.70
E	0.043	0.047	0.051	1.10	1.20	1.30
e	0.02 BSC			0.5 BSC		
L	0.004	0.008	0.012	0.10	0.20	0.30
H _E	0.059	0.062	0.067	1.50	1.60	1.70



Symbol	Inches	Millimeters
C	0.0531	1.35
G	0.0354	0.90
P	0.0197	0.50
X	0.0118	0.30
Y	0.0177	0.45
Z	0.0709	1.80

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