



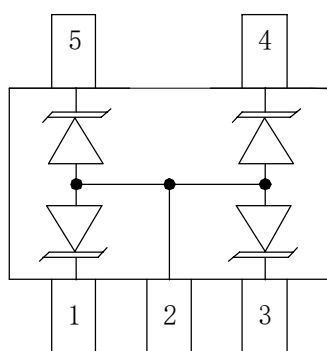
Description

The JLE05UUT6 -5 is a low capacitance TVS array, utilizing leading monolithic silicon technology to provide fast response time and low ESD clamping voltage, making this device an ideal solution for protecting voltage sensitive high-speed data lines. The JLE05UUT6-5 has low capacitance with a typical value at 10pF, and complies with the IEC 61000-4-2 (ESD) standard with $\pm 15\text{kV}$ air and $\pm 12\text{kV}$ contact discharge. It is assembled into a 5-pin lead-free SOT-553 package. The combination of small size, low capacitance and high level of ESD protection makes it ideal for cellular, notebooks, desktops, and other portable application.

Features

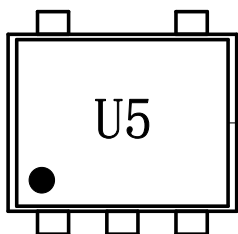
- * Ultra low leakage: nA level
- * Operating voltage: 5V
- * Low clamping voltage
- * Up to 4 lines protects
- * SOT-553 package
- * Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 15\text{kV}$
 - Contact discharge: $\pm 12\text{kV}$
 - IEC61000-4-5 (Lightning) 2A (8/20us)
- * RoHS Compliant

Circuit Diagram



Circuit Diagram

Marking Diagram



Transparent top view

U5= Device Marking Code

Dot denotes Pin1

Applications

- * Cellular Handsets and Accessories
- * Personal Digital Assistants
- * Notebooks and Handhelds
- * Portable Instrumentation
- * Digital Cameras
- * Peripherals
- * Audio Players
- * Keypads, Side Keys, LCD Displays

Ordering Information

Part Number	Packaging	Reel Size
JLE05UUT6-5	3000/Tape & Reel	7 inch



JLE05UUT6-5

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

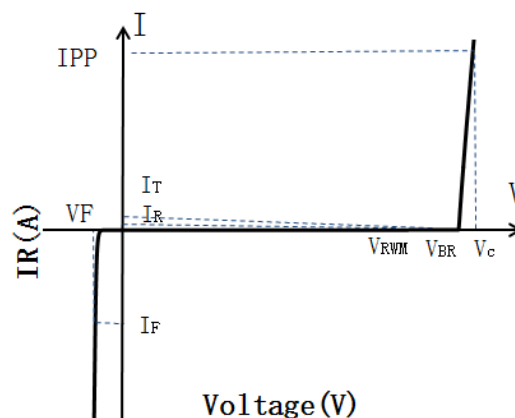
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	Ppk	25	W
Peak Pulse Current (8/20 μs)	IPP	2	A
ESD per IEC 61000-4-2 (Air)	V_{ESD}	± 15	kV
ESD per IEC 61000-4-2 (Contact)		± 12	
Operating Temperature Range	TJ	-40 to +125	$^\circ\text{C}$
Storage Temperature Range	Tstg	-40 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}	I/O-GND			5.0	V
Breakdown Voltage	V_{BR}	$I_{\text{T}} = 1\text{mA}$ (I/O-GND)	6.0	7.5	8.5	V
Reverse Leakage Current	I_{R}	$V_{\text{RWM}} = 5.0\text{V}$			0.5	μA
Forward Breakdown Voltage	V_{F}	$I_{\text{F}} = 10\text{mA}$, GND to Pin IO		0.8	1.0	V
Clamping Voltage	V_{C}	IPP = 2A (8 x 20 μs pulse)			12.5	V
Junction Capacitance	C_{J}	$f = 1\text{MHz}$, I/O-GND		10		pF
Junction Capacitance	C_{L}	$f = 1\text{MHz}$, I/O-I/O pins		5		pF

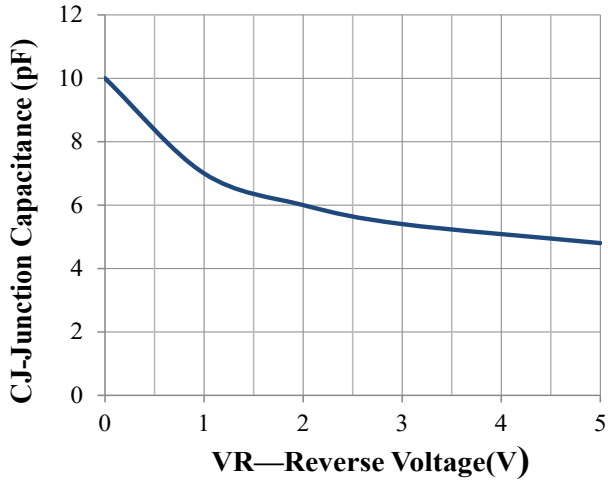
Portion Electronics Parameter

Symbol	Parameter
I_{T}	Test Current
IPP	Maximum Reverse Peak Pulse Current
V_{C}	Clamping Voltage @ I_{C}

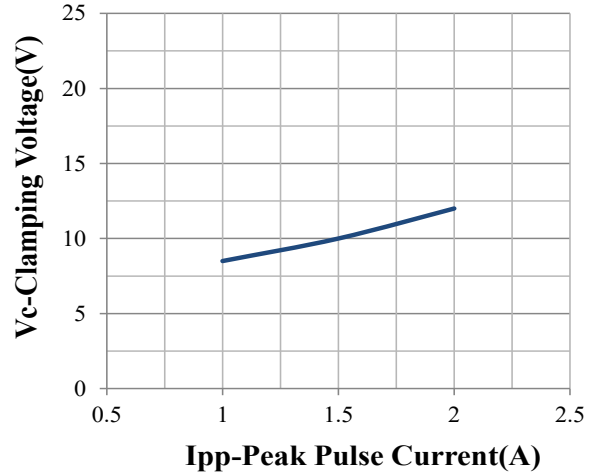




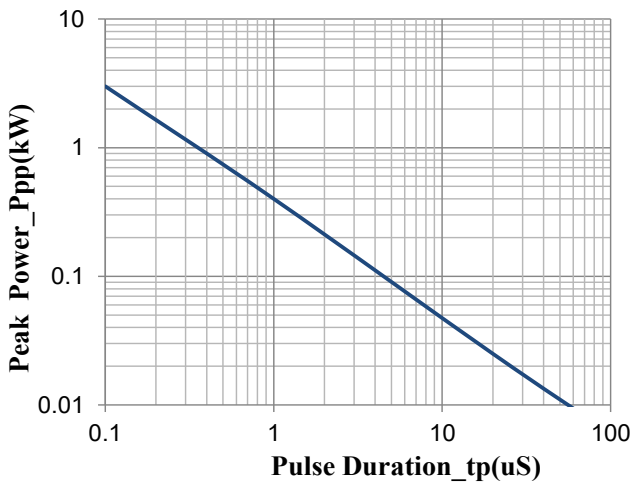
Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)



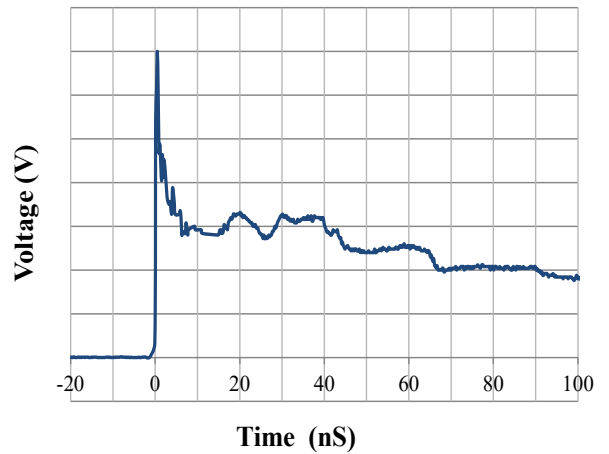
Junction Capacitance vs. Reverse Voltage



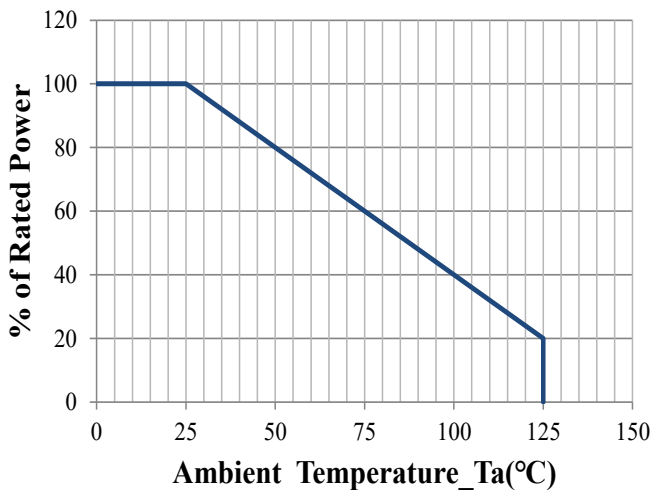
Clamping Voltage vs. Peak Pulse Current



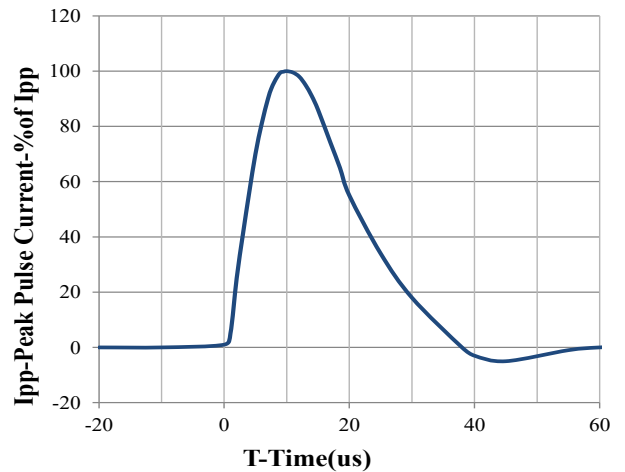
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform



Power Derating Curve

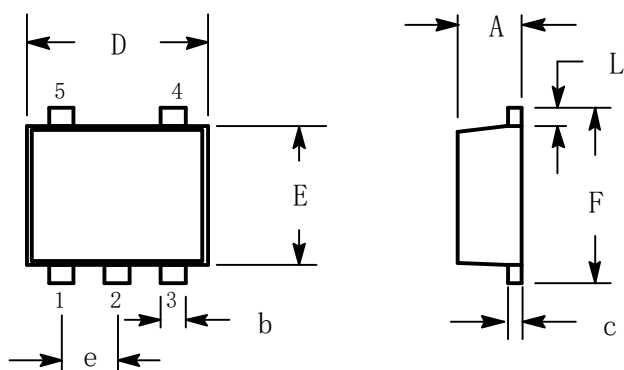


8 X 20us Pulse Waveform



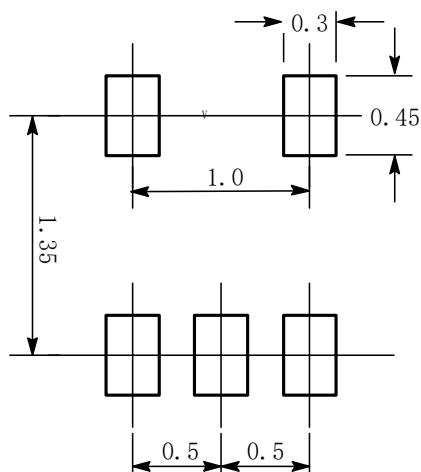
JLE05UUT6-5

SOT-553 Package Outline Drawing



DIM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.50	0.55	0.60	0.020	0.022	0.024
b	0.17	0.22	0.27	0.007	0.009	0.011
c	0.08	0.13	0.18	0.003	0.005	0.007
D	1.50	1.60	1.70	0.059	0.063	0.067
e	0.50 BSC			0.020 BSC		
E	1.10	1.20	1.30	0.043	0.047	0.051
L	0.10	0.20	0.30	0.004	0.008	0.012
F	1.50	1.80	1.70	0.059	0.063	0.067

Suggested Land Pattern



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