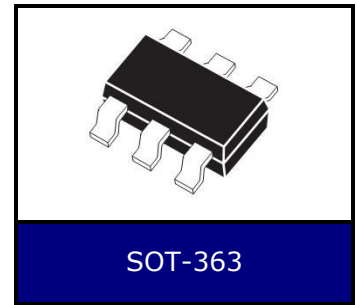




## LOW CAPACITANCE TVS DIODE ARRAY

The PJSRV05W-4 has a low typical capacitance of 1.8pF and operates with virtually no insertion loss to 1GHz. This makes the device ideal for protection of high-speed data lines such as USB 2.0, Firewire, DVI, and Gigabit Ethernet interfaces.

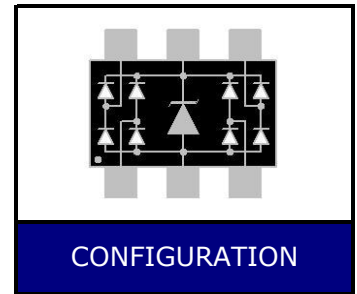
The low capacitance array configuration allows the user to protect four high-speed data or transmission lines. The low inductance construction minimizes voltage overshoot during high current surge.



SOT-363

### SPECIFICATION FEATURES

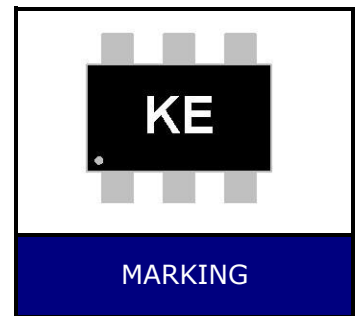
- IEC61000-4-2 ESD 15kV Air, 8kV Contact compliance
- Low leakage current, maximum of 0.5uA at rated voltage
- Low clamping voltage
- Peak power dissipation of 150W under 8/20us waveform
- Protect four I/O lines.
- Molded JEDEC SOT-363 package
- Flammability rating UL94V-0
- Lead Free package 100% tin plating matt finish



CONFIGURATION

### APPLICATIONS

- USB 2.0 Power and Data Line Protection
- Video Graphics Cards
- Monitors and Flat Panel Displays
- Digital Video Interface (DVI)
- 10/100/1000 Ethernet
- ATM Interfaces



MARKING



## MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Peak Pulse Power (8/20us waveform)	P <sub>PP</sub>	150	W
Peak Pulse Current (8/20us waveform)	I <sub>PPM</sub>	6	A
ESD Voltage (HBM Contact)	V <sub>ESD</sub>	>8	kV
Operating Temperature Range	T <sub>J</sub>	-55~+150	°C
Storage Temperature Range	T <sub>STG</sub>	-55~+150	°C



## ELECTRICAL CHARACTERISTICS (T<sub>J</sub>=25°C)

### PJSRV05W-4

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	V <sub>WRM</sub>				5	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>BR</sub> =1mA, PIN 5 to 2	6			V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =5V, PIN 5 to 2		1	3	uA
Clamping Voltage (8/20us)	V <sub>C</sub>	I <sub>pp</sub> =1A, Any I/O pin to Pin 2			15	V
Clamping Voltage (8/20us)	V <sub>C</sub>	I <sub>pp</sub> =6A, Any I/O pin to Pin 2			25	V
Off State Junction Capacitance	C <sub>J</sub>	0Vdc, f=1MHZ between I/O lines and GND			2	pF
Off State Junction Capacitance	C <sub>J</sub>	0Vdc, f=1MHZ between I/O lines			1	pF



# TYPICAL CHARACTERISTICS CURVES

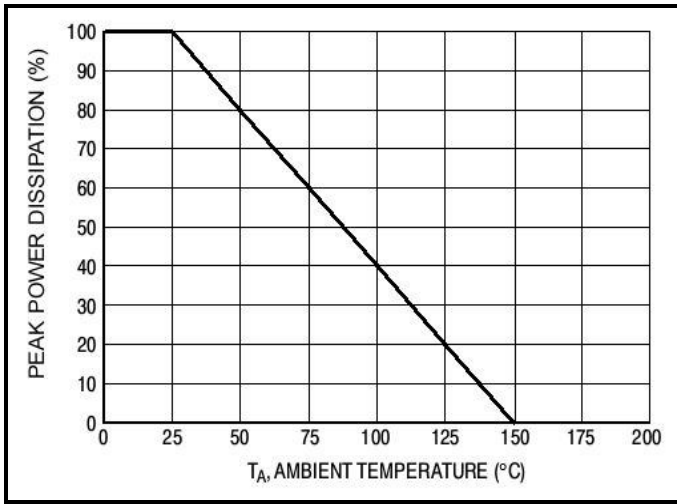


Figure 1. Power Derating Curve

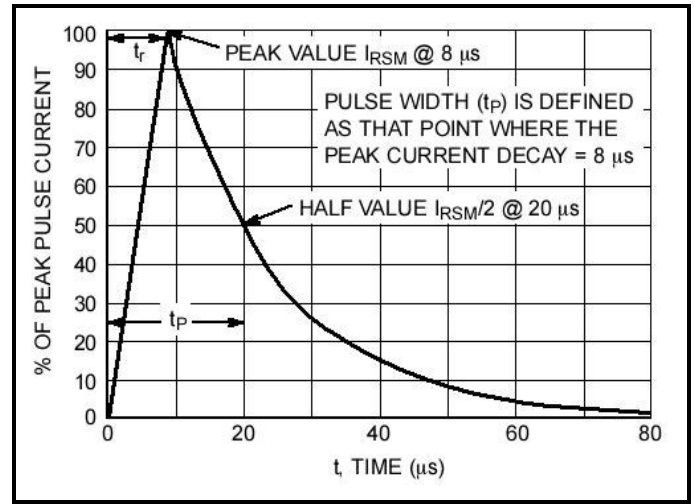


Figure 2. 8x20us Pulse Waveform

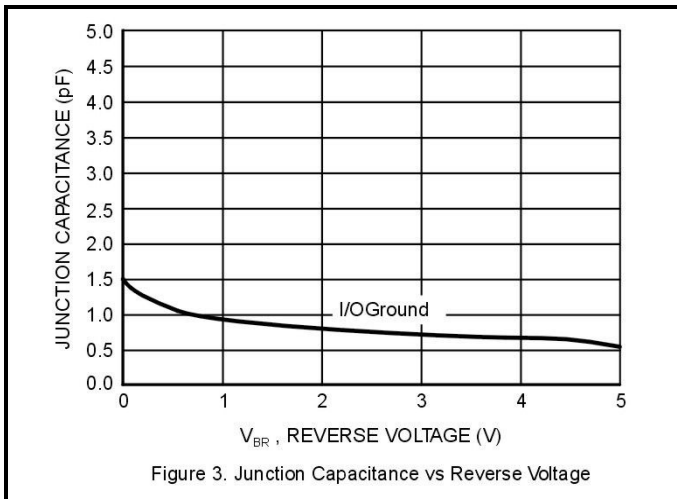


Figure 3. Junction Capacitance vs Reverse Voltage

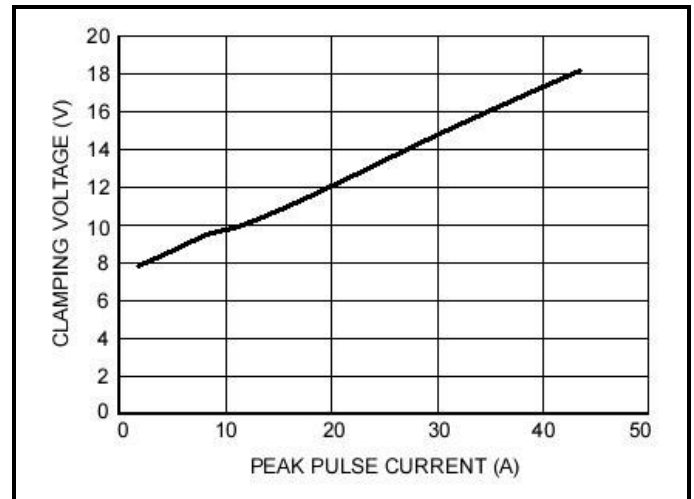


Figure 4. Clamping Voltage vs Peak Pulse Current (8x20 Waveform)

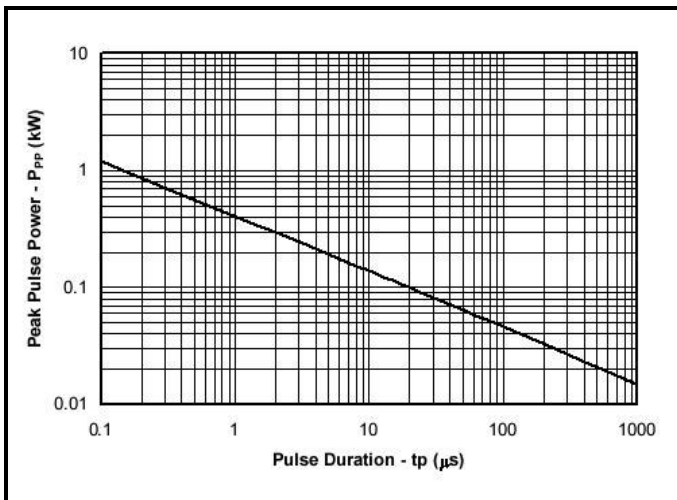


Figure 5. Non-Repetitive Peak Pulse vs. Pulse Time

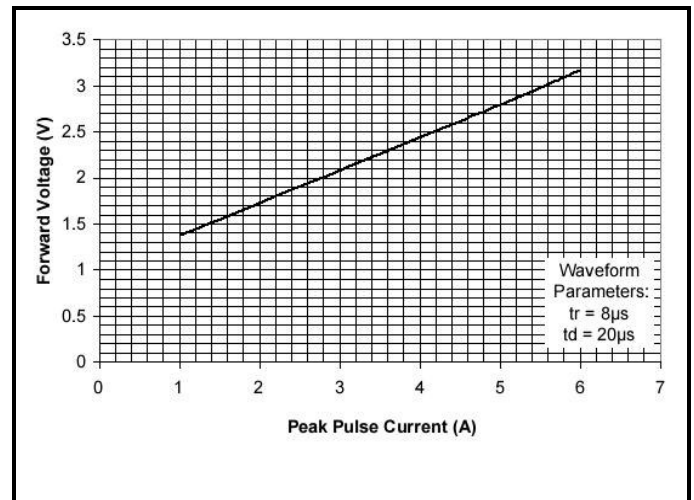
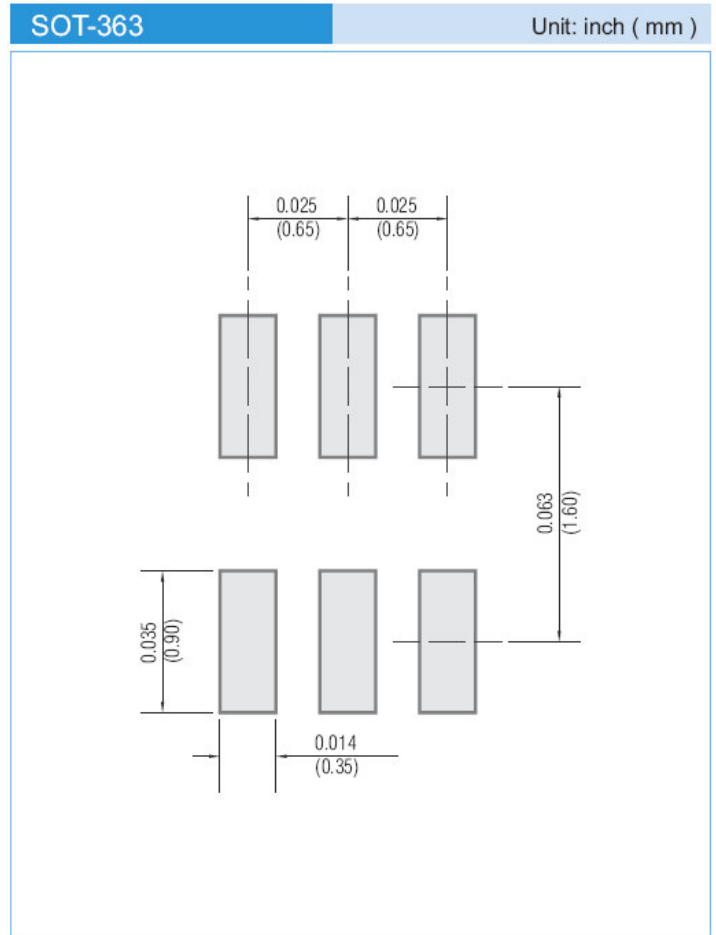
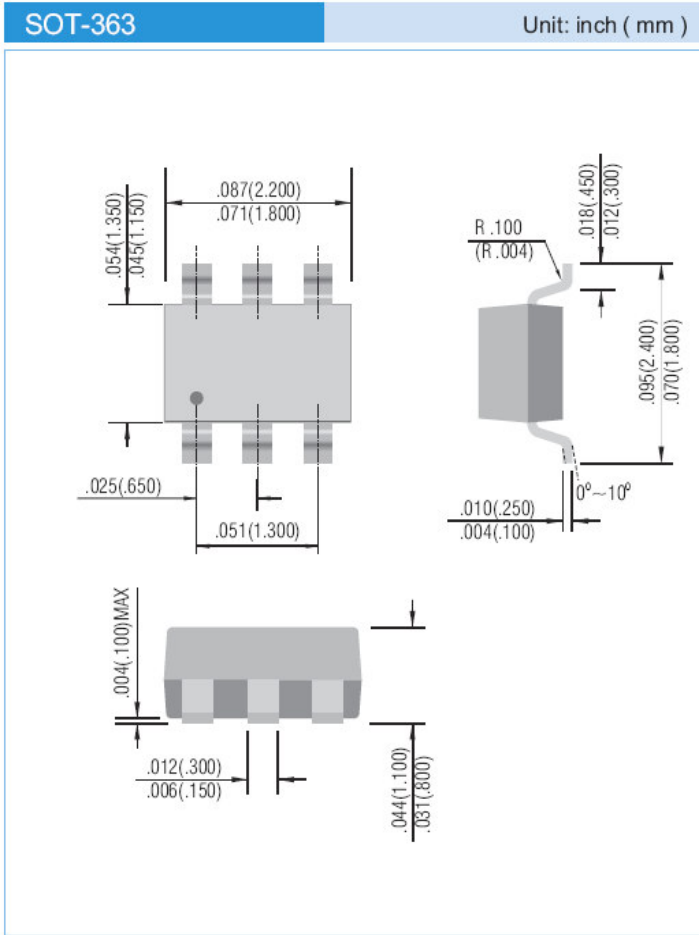


Figure 6. Forward Voltage vs. Forward Current



# PACKAGE AND SUGGESTED PAD LAYOUT DIMENSION



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