

### Features

- low clamping voltage
- Low leakage current
- Small package
- Low Voltage Clamping Due To Integrated Zener Diode
- Four Ultra-Low Input Capacitance (1 pF typ.) ESD Rail-to-Rail Protection Diodes
- Lead-free parts meet RoHS requirements.
- Suffix "-H" indicates Halogen-free parts, ex. SRV05-4-H.

### Applications

- Digital Cameras
- Portable Instrumentation
- Notebooks, Desktops, and Servers
- Personal Digital Assistants (PDAs)
- Cell phone handsets and accessories

### Mechanical data

- Epoxy : UL94-V0 rated flame retardant
- Case : Molded plastic, SOT-23-6
- Terminals :Plated terminals, solderable per MIL-STD-750, Method 2026
- Mounting Position : Any
- Weight : Approximated 0.013 gram

### Package outline

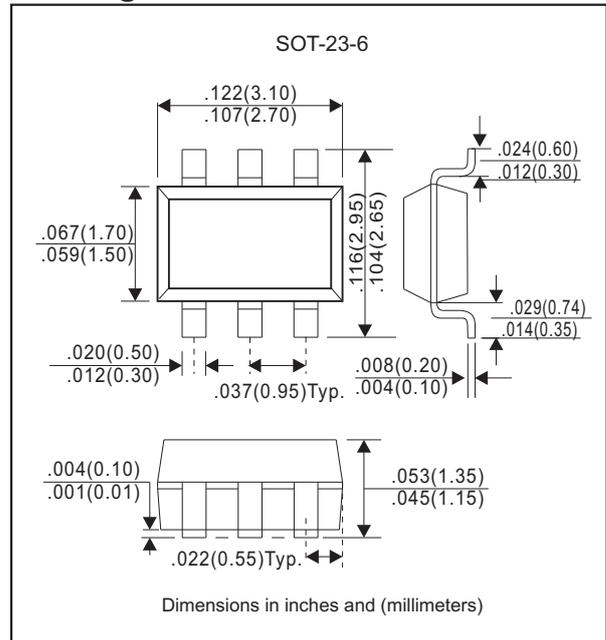


Fig. 1A

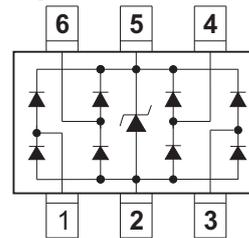
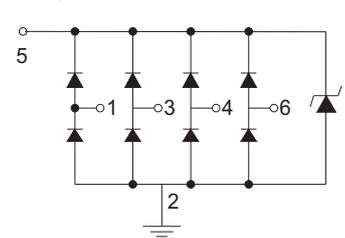


Fig. 1B



### Maximum ratings (at $T_A=25^\circ\text{C}$ unless otherwise noted)

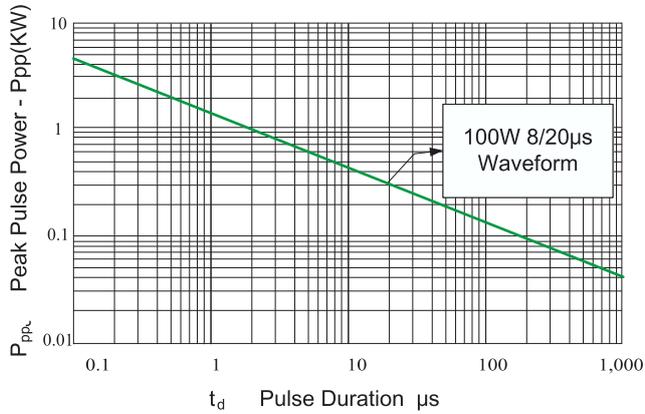
Parameter	Symbol	Ratings	Unit
Peak pulse power(8/20us)	$P_{PP}$	100	W
Peak pulse current IEC 61000-4-5(8/20us)	$I_{PP}$	5	A
ESD per IEC 61000-4-2(air) ESD per IEC 61000-4-2(contact)	$V_{ESD}$	$\pm 25$ $\pm 25$	kV
Operating junction temperature range	$T_{opr}$	-55 to +125	$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-55 to +150	$^\circ\text{C}$

### Electrical characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

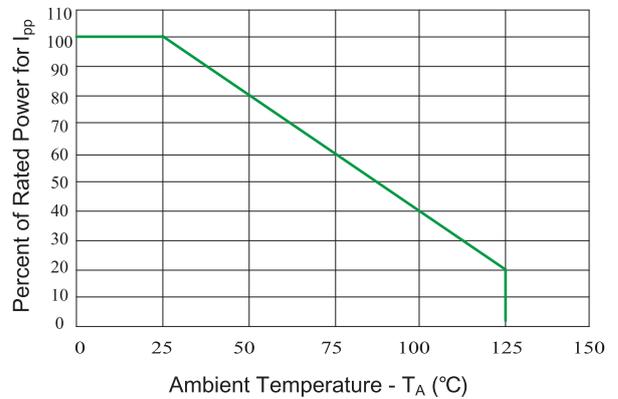
Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Reverse working voltage	any I/O pin to GND	$V_{RWM}$			5.0	V
Reverse breakdown voltage	$I_T = 1\text{mA}$ , any I/O pin to GND	$V_{BR}$	6.0			V
Reverse leakage current	$V_{RWM}=5\text{V}$ ,any I/O pin to GND	$I_R$			1.0	$\mu\text{A}$
Clamping voltage	$I_{PP}=1\text{A}$ , $tp=8/20\mu\text{s}$ I/O pin to GND	$V_{C1}$			11	V
	$I_{PP}=1\text{A}$ , $tp=8/20\mu\text{s}$ I/O pin to GND	$V_{C2}$			15	V
Junction capacitance Between channel	$V_R=0\text{V}$ , $f=1\text{MHz}$ ,between I/O pins	$C_{J1}$		0.35	0.45	pF
Junction capacitance Between I/O and GND	$V_R=0\text{V}$ , $f=1\text{MHz}$ ,any I/O pin to GND	$C_{J2}$			0.9	pF

## Rating and characteristic curves (SRV05-4)

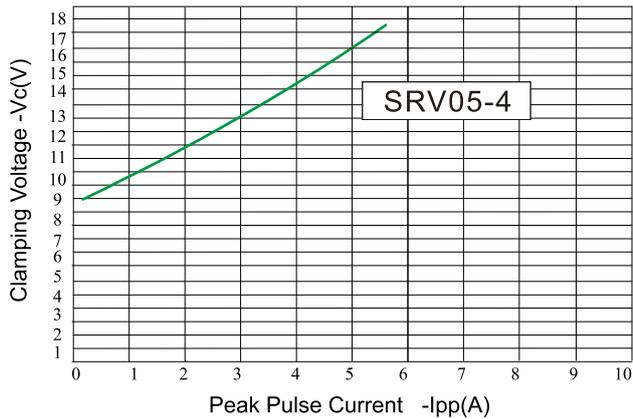
**Figure 1: Peak Pulse Power Vs Pulse Time**



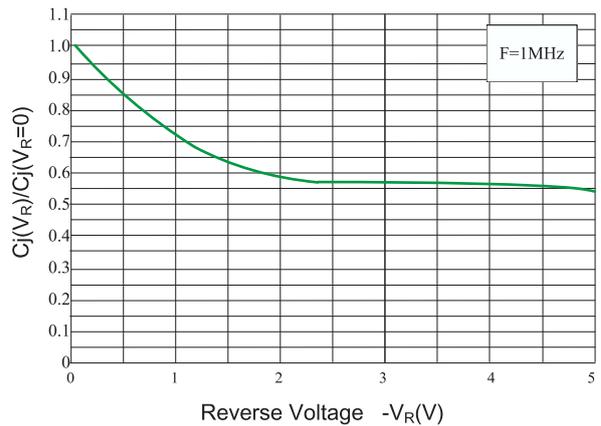
**Figure 2: Power Derating Curve**



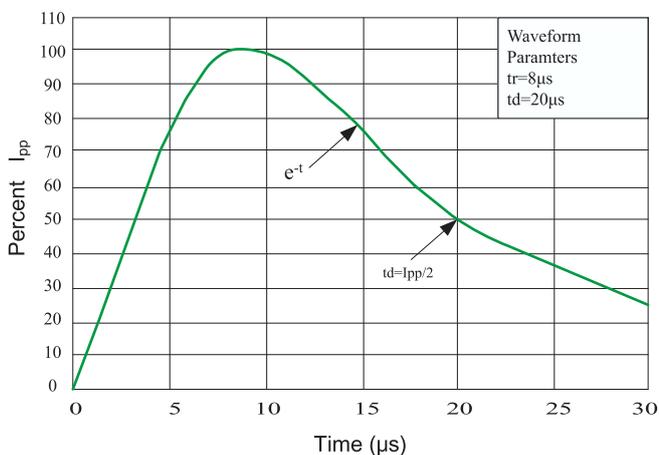
**Figure 3: Clamping Voltage vs. Peak Pulse Current**



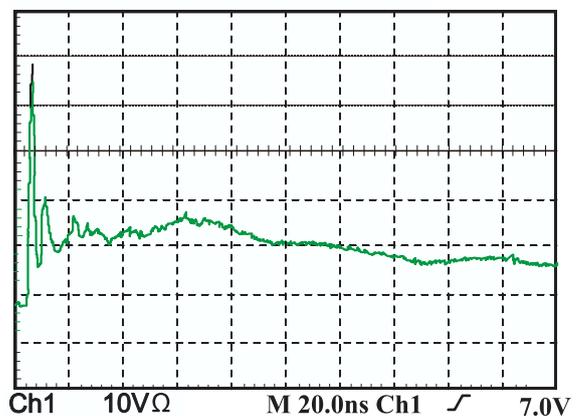
**Figure 4: Normalized Junction Capacitance vs. Reverse Voltage**



**Figure 5: Pulse Waveform**



**Figure 6: ESD Clamping( 8kV Contact per IEC 61000-4-2)**



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