

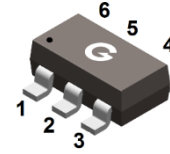
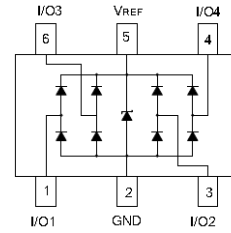
Features

- ESD / transient protection of high speed data lines
 - IEC 61000-4-2 (ESD): ± 30 kV (air), ± 30 kV (contact)
- Low clamping voltage
- Low leakage

HF

Mechanical Data

- Case: SOT-23-6L
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208



SOT-23-6L

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
PSRV05-6L	SOT-23-6L	3000 pcs / Tape & Reel	P05

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

Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20\mu\text{s}$)	P_{PP}	450	W
Peak Pulse Current ($t_p = 8/20\mu\text{s}$)	I_{PP}	25	A
Reverse Stand-off Voltage	V_{RWM}	5	V
IEC 61000-4-2; ESD (Air)	V_{ESD-A}	30	kV
IEC 61000-4-2; ESD (Contact)	V_{ESD-C}	30	

Thermal Characteristics

Parameter	Symbol	Value	Unit
Thermal Resistance Junction-to-Air ^{*1}	$R_{\theta JA}$	114	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Case ^{*1}	$R_{\theta JC}$	53	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Lead ^{*1}	$R_{\theta JL}$	78	$^\circ\text{C/W}$
Junction Temperature	T_J	$-55 \sim +125$	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	$-55 \sim +150$	$^\circ\text{C}$

Note 1: The data tested by surface mounted on a 25.4mm * 25.4mm * 1mm FR4-epoxy P.C.B

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	V_{BR}	$I_R = 1\text{mA}$, Any I/O Pin to GND	6	-	-	V
Reverse Leakage Current (Note 1)	I_R	$V_R = 5\text{V}$, Any I/O Pin to GND	-	-	1	μA
Clamping Voltage $t_p = 8/20\mu\text{s}$	V_C	$I_{PP} = 1\text{A}$, Any I/O Pin to GND	-	-	8.5	V
		$I_{PP} = 5\text{A}$, Any I/O Pin to GND	-	-	10	
		$I_{PP} = 25\text{A}$, Any I/O Pin to GND	-	-	12	
Junction Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$, Any I/O to GND	-	-	5	pF
		$V_R = 0\text{V}$, $f = 1\text{MHz}$, Between I/O pins	-	-	3	pF

Note1: Short duration pulse test used to minimize self-heating effect

Ratings and Characteristics Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

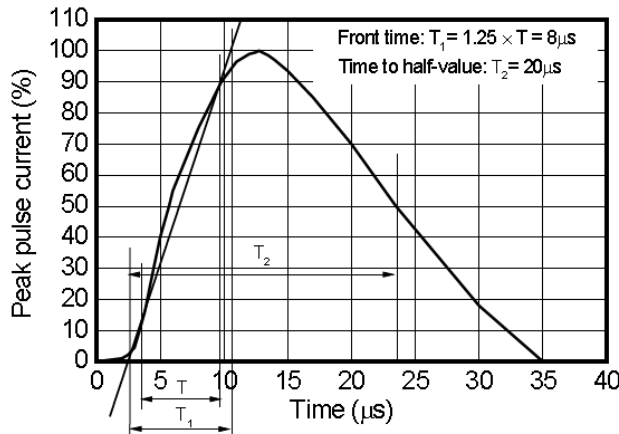


Fig1. 8/20 μs waveform per IEC61000-4-5

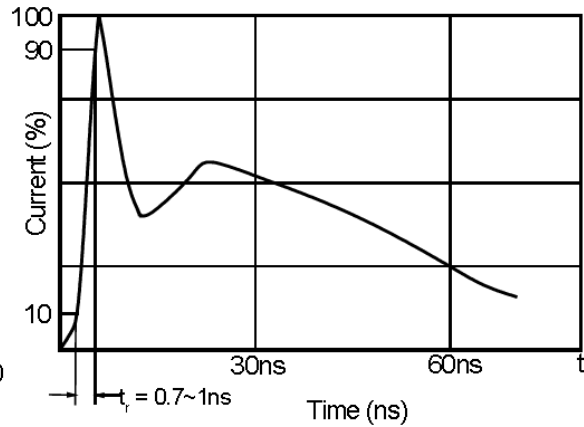


Fig2. ESD pulse waveform according to IEC61000-4-2

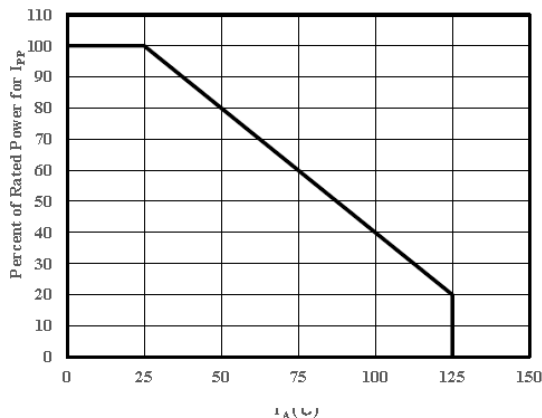
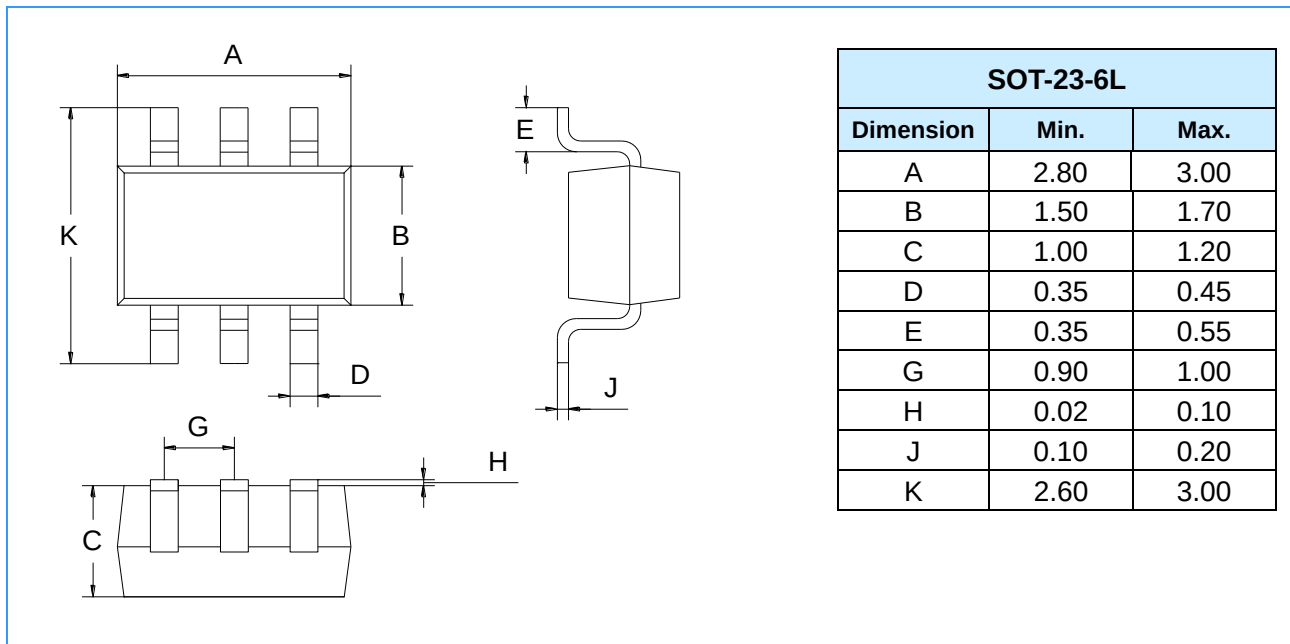
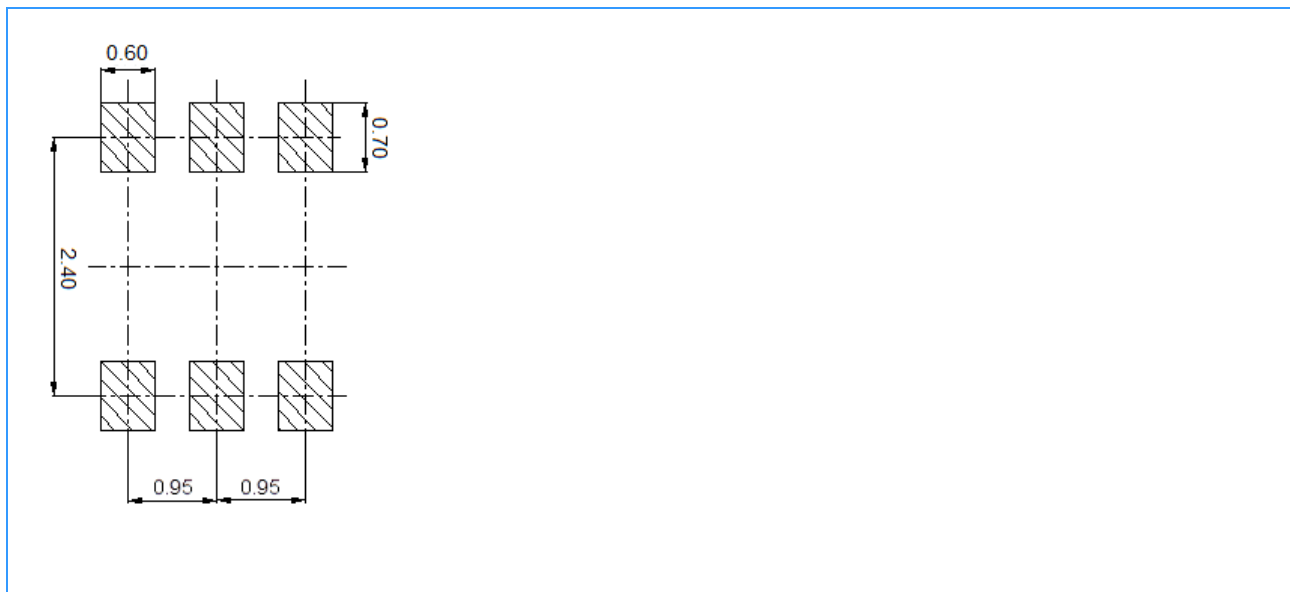


Fig3. Power Derating Curve

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



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