

SOT23-6L Plastic-Encapsulate ESD Protection Diodes

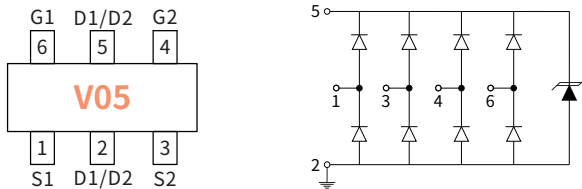
Features

- Low leakage current
- SOT-23-6L surface mount package
- IEC 61000-4-2 (ESD Air): $\pm 15\text{kV}$
- IEC 61000-4-2 (ESD Contact): $\pm 15\text{kV}$
- IEC 61000-4-5 (Lightning 8/20 μs): 4A

Applications

- Automotive Applications
- CAN Bus
- Electronic Control Units
- Body Control Units
- ADAS Control Units
- Power Train Control Units

Reference News



Reverse Working Voltage
5.0V Max.
Ultra small capacitance
 $C_{I/O-GND}=1.0\text{pF(Typ.)}$
 $C_{I/O-I/O}=0.5\text{pF(Typ.)}$

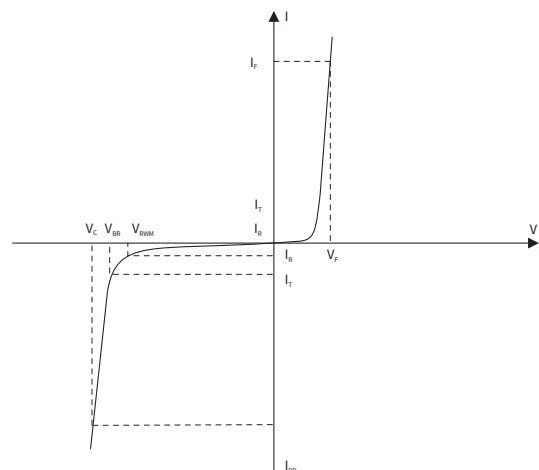


Maximum Ratings (Ta=25°C Unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{ESD}	Electrostatic Discharge Voltage	ESD per IEC 61000-4-2(Air)	± 15	KV
		ESD per IEC 61000-4-2(Contact)	± 15	KV
P_{PP}	Peak Pulse Power	$t_p = 8/20 \mu\text{s}$	80	W
I_{PP}	Rated Peak Pulse Current	$t_p = 8/20 \mu\text{s}$	4	A
T_J	Operating Junction Temperature Range	—	-55 to +125	°C
T_{STG}	Operating Junction Temperature Range	—	-55 to +150	°C

Electrical Parameter

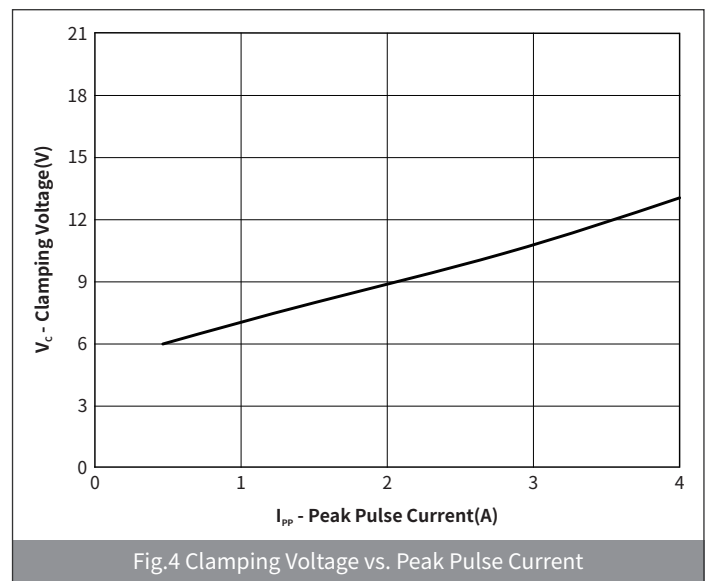
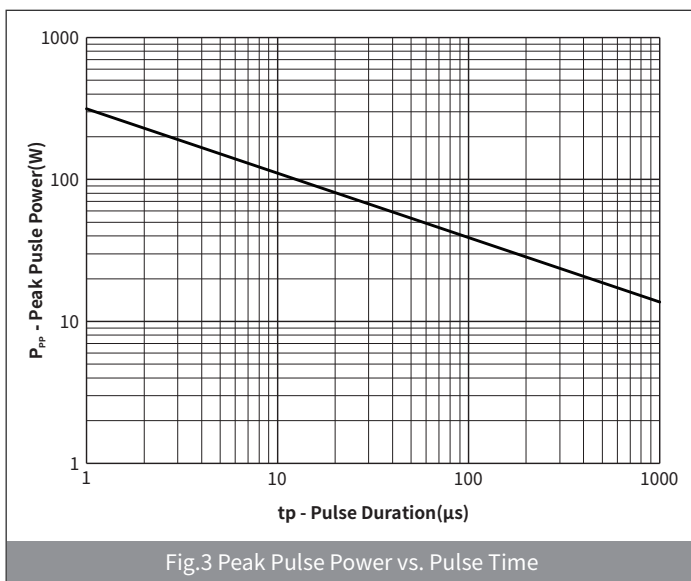
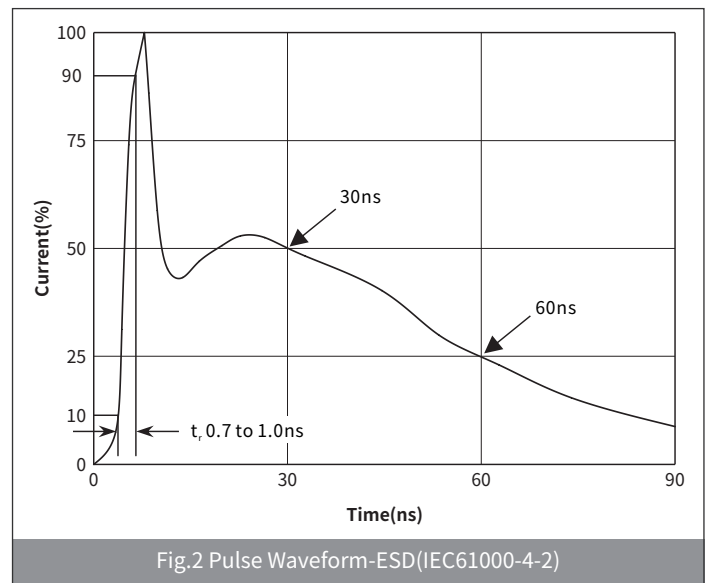
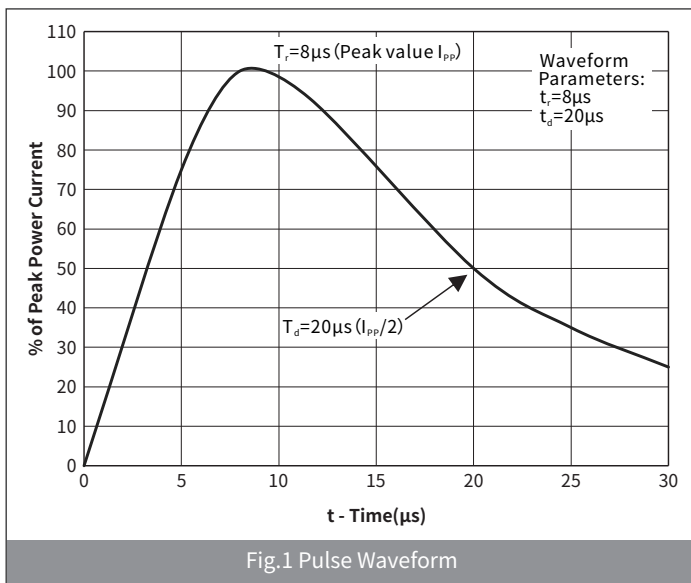
SYMBOL	PARAMETER
V_C	Clamping Voltage @ I_{PP}
V_{BR}	Breakdown Voltage @ I_T
I_{PP}	Peak Pulse Current
I_T	Test Current
I_R	Reverse Leakage Current @ VRWM
V_{RWM}	Peak Reverse Working Voltage
P_{PP}	Peak Pulse Power Dissipation
C_J	Junction Capacitance @ $V_R=0\text{V}, f=1\text{MHz}$
I_F	Forward Current
V_F	Forward Voltage @ I_F



Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	CONDITION	Min	Typ	Max	UNIT
Peak Reverse Working Voltage	V_{RWM}	$T_a=25^\circ\text{C}$	—	—	5.0	V
Breakdown Voltage	V_{BR}	$I_R=1\text{mA}, T_a=25^\circ\text{C}$	6.0	—	—	V
Reverse Leakage Current	I_R	$V_{RWM}=5.0\text{V}, T_a=25^\circ\text{C}$	—	—	5	μA
Forward voltage	V_F	$I_F=10\text{mA}, T_a=25^\circ\text{C}$	—	0.8	1.0	V
Clamping Voltage	V_C	$I_{PP}=4.0\text{A}, t_p=8/20\mu\text{s}$	—	12	15	V
Junction Capacitance	C_J	$V_{RWM}=0\text{V}, f=1\text{MHz}, \text{I/O pin to GND}$	—	0.5	—	pF
		$V_{RWM}=0\text{V}, f=1\text{MHz}, \text{Between I/O pins}$	—	1.0	—	

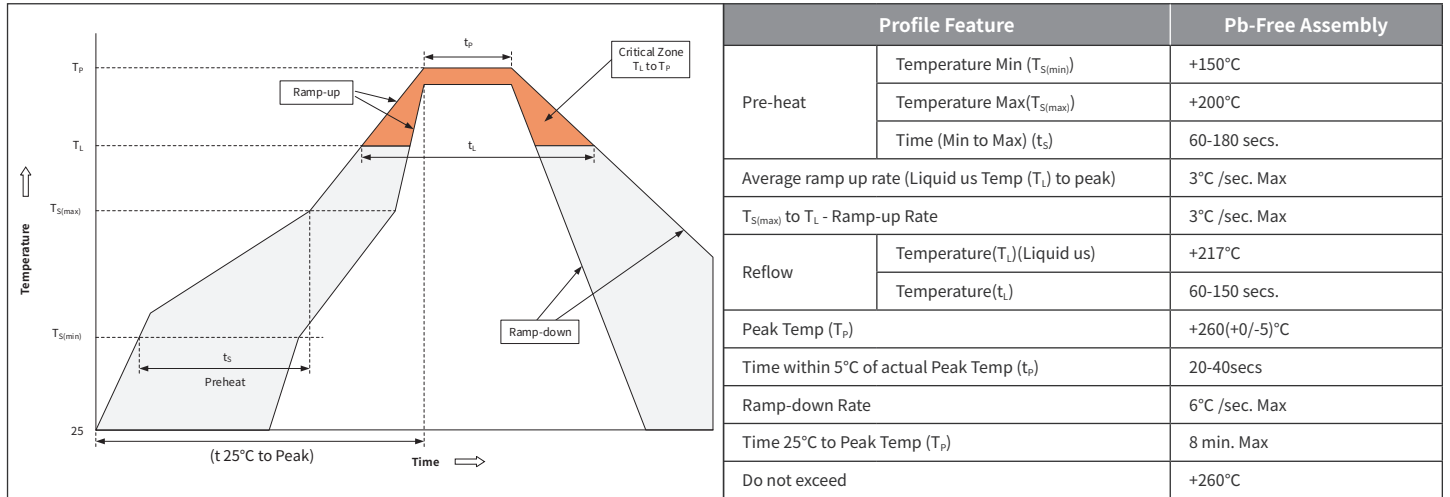
Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



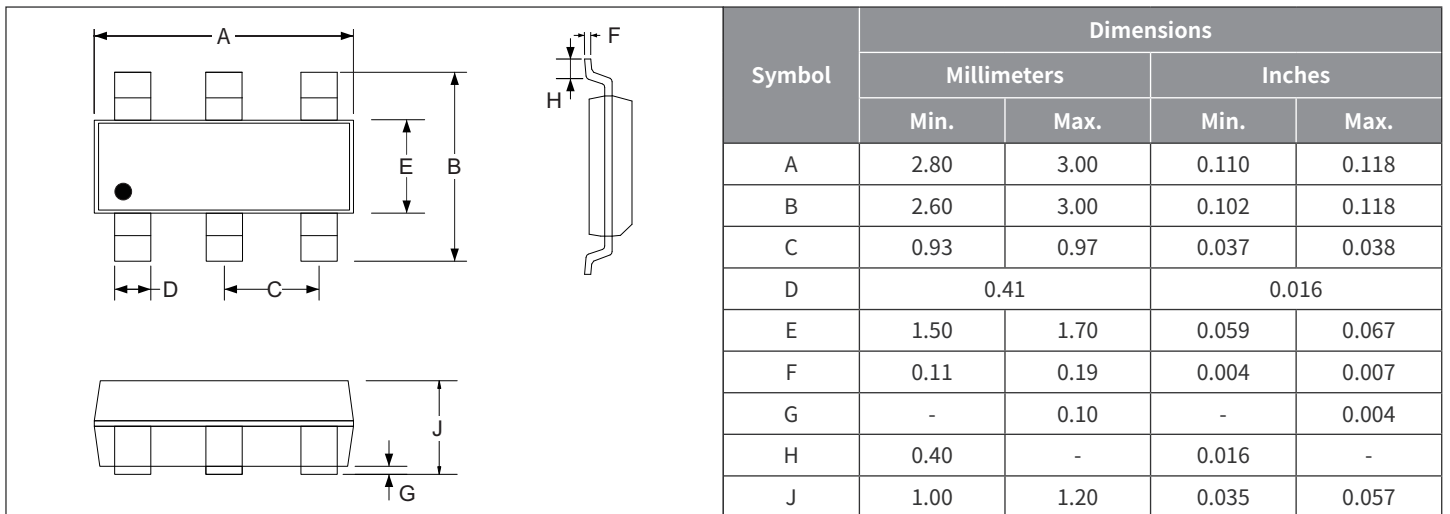
Ordering Information

PREFERRED P/N	PACKAGE	SIZE(mm)	DELIVERY MODE	MPQ(PCS)
SRV05-4A	SOT-23-6L	2.90×2.80×1.10	7" REEL	3000

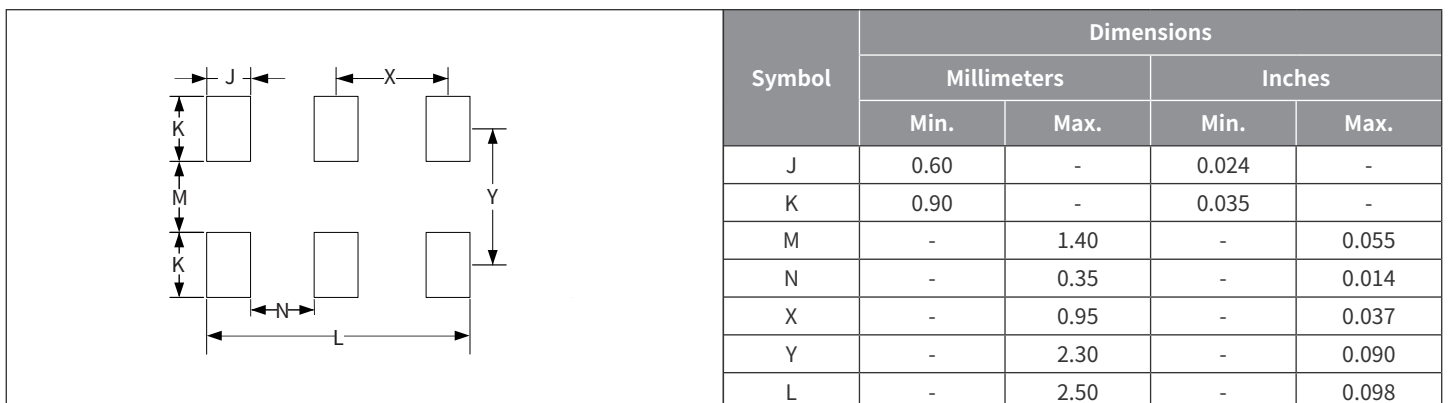
Recommended Soldering Conditions



Package Outline Dimensions (SOT23-6L)



Suggested Pad Layout



Note :
This soldering footprint is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met.