Changshu Talent
Semiconductors Co.,Ltd
Tel:0086-512-52851998
Fax:0086-512-52153129

ESD5V0L4

5 Volts ESD Protection Device

Features

- For sensitive ESD protection
- Excellent clamping capability
- Low leakage
- ESD rating of class 3(>16KV)per Human Body Mode
- For space saving application
- Fast response ,response time less than 1ns.

Epoxy meets UL 94 V-0 flammability rating
Moisture Sensitivity Level 1

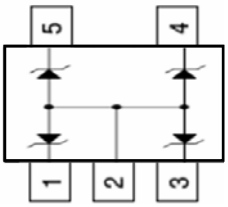
Maximum Ratings

- Operating Junction &StorageTemperature: -55°C to +150°C
- Maximum Thermal Resistance; 833°C/W Junction To Ambient

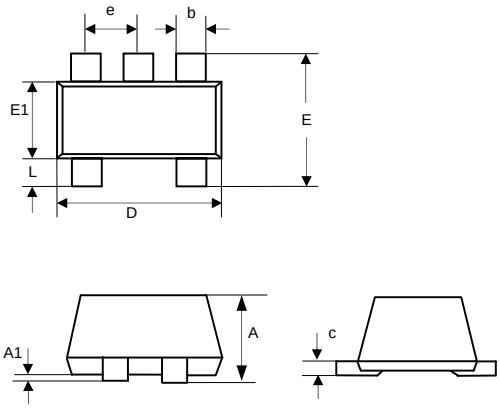
Parameter	Symbol	Limits	unit
IEC61000-4-2(ESD) Air Contact		±30 ±30	KV
ESD Voltage per human body mode per machine mode		16 400	KV V
Power Dissipation(Note 1)	Pd	150	mw
Peak Power Dissipation@8/20us	Ppk	200	W

1. Only 1 diode under power. For all 4 diodes under power, PD will be 25%. Mounted on FR--4 board with min pad.

Pin Configuration



SOT-553



DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	.021	.024	.525	.60
A1	.00	.002	.00	.05
e	.018	.022	.45	.55
c	.004	.006	.09	.16
D	.059	.067	1.5	1.7
b	.007	.011	.17	.27
E1	.043	.051	1.1	1.3
E	.059	.067	1.5	1.7
L	.004	.012	.100	.300

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted, V_F = 0.9 V Max. @ I_F = 10mA for all types)

Device*	Device Marking	V_{RWM} (V)	I_R (μ A) @ V_{RWM}	V_{BR} (V) @ I_T		I_T	V_F (V) @I_F=200mA	V_C (V) @Max I_{PP}=1A	V_C (V) @Max I_{PP}=5A	C (pF)
		Max	Max	Min	Max	mA	Max	Max	Max	Max
ESD5V0L4	42	5.0	5	6.0	7.2	1.0	1.25	10.5	13.5	80

1. Non--repetitive current per Figure 1. Derate per Figure 2.

TYPICAL CHARACTERISTICS

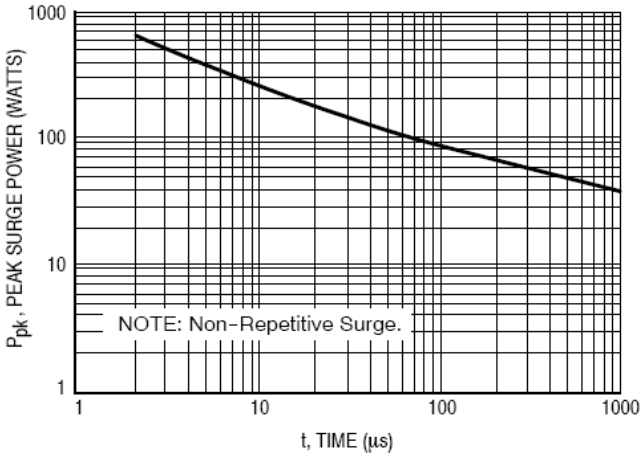


Figure 1. Pulse Width

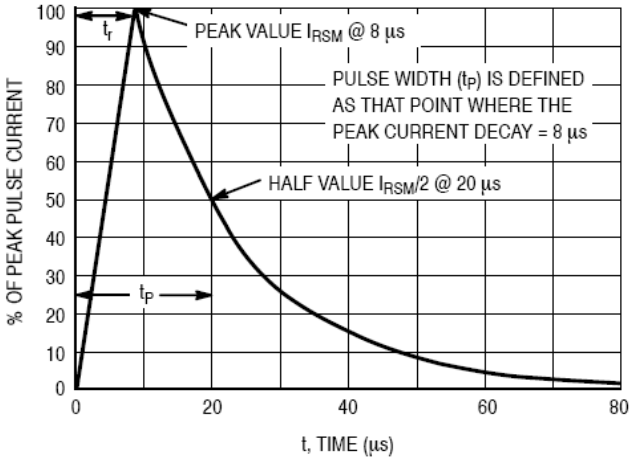


Figure 2. 8 × 20 μs Pulse Waveform

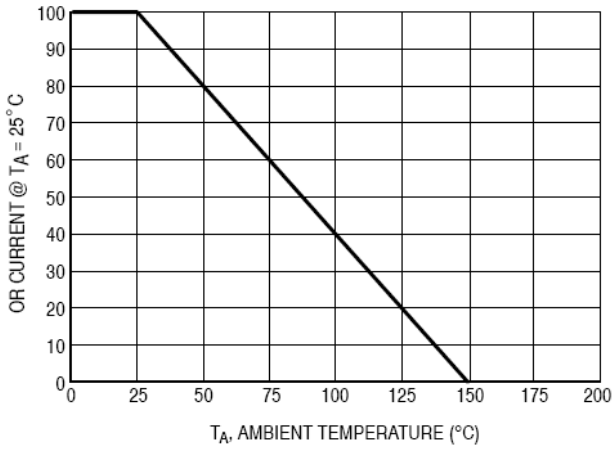


Figure 3. Pulse Derating Curve

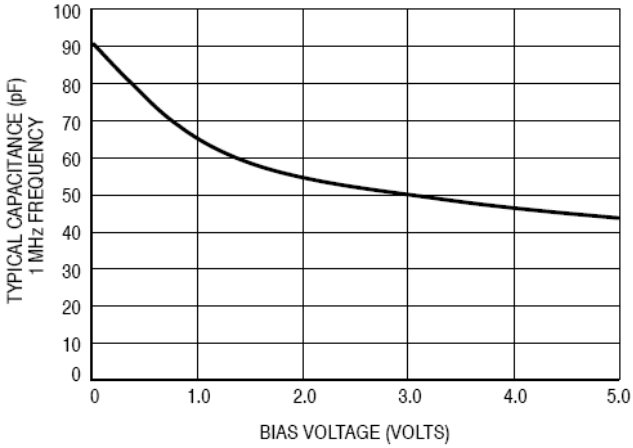


Figure 4. Capacitance

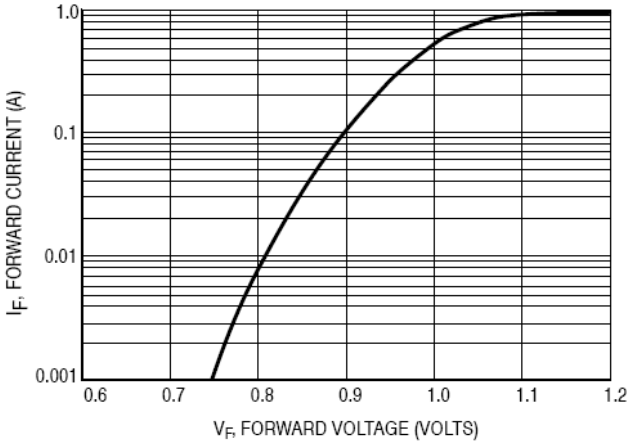


Figure 5. Forward Voltage

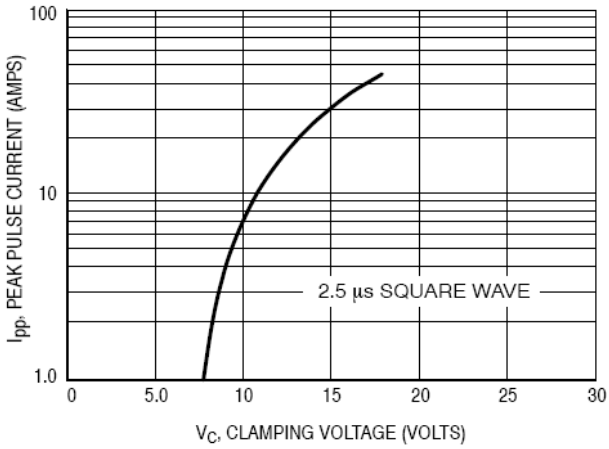


Figure 6. Clamping Voltage versus Peak Pulse Current (Reverse Direction)

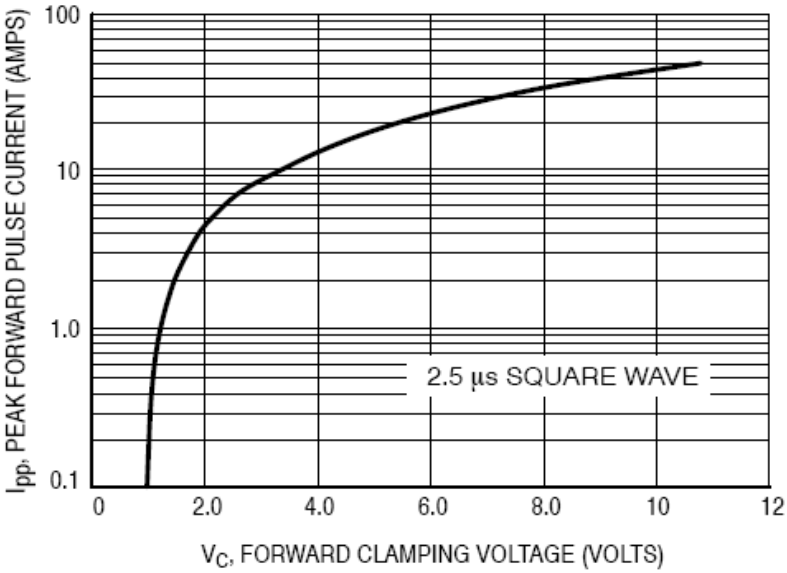


Figure 7. Clamping Voltage versus Peak Pulse Current (Forward Direction)