

ESD3304P series

Description

The ESD3304 Series is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium.

Features

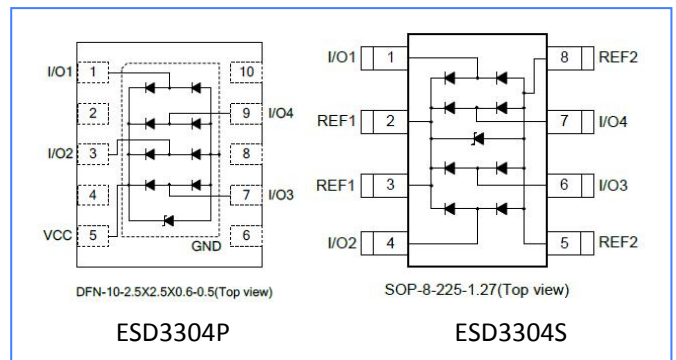
- Protects four I/O lines
- IEC61000-4-2 (ESD) $\pm 30\text{kV}$ (air), $\pm 30\text{kV}$ (contact)
- Low capacitance: 3.0pF
- Low leakage current
- 450 Watts Peak Pulse Power
- Low working voltage: 3.3V

Applications

- T1/E1 Secondary Protection
- T3/E3 Secondary Protection
- 10/100/1000 Ethernet
- A/V Equipment
- DVI



Functional Diagram



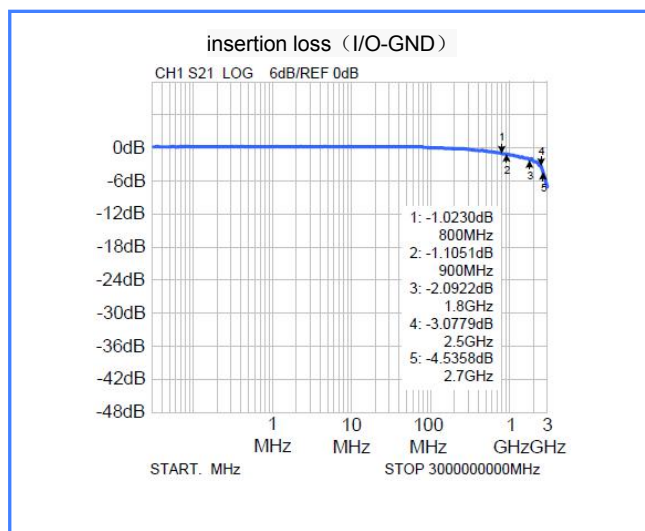
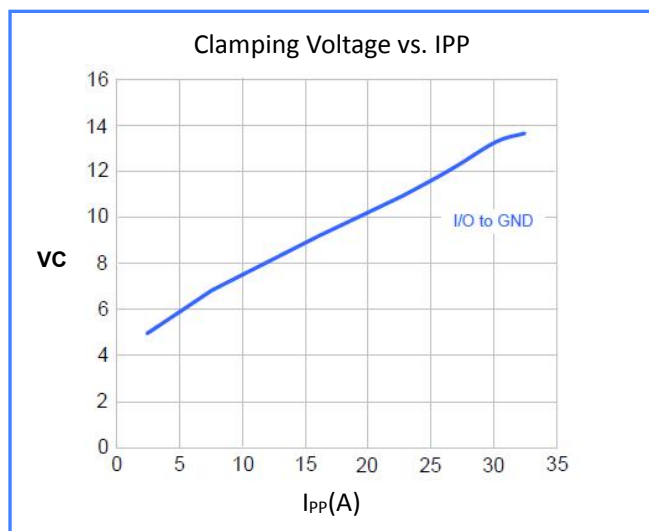
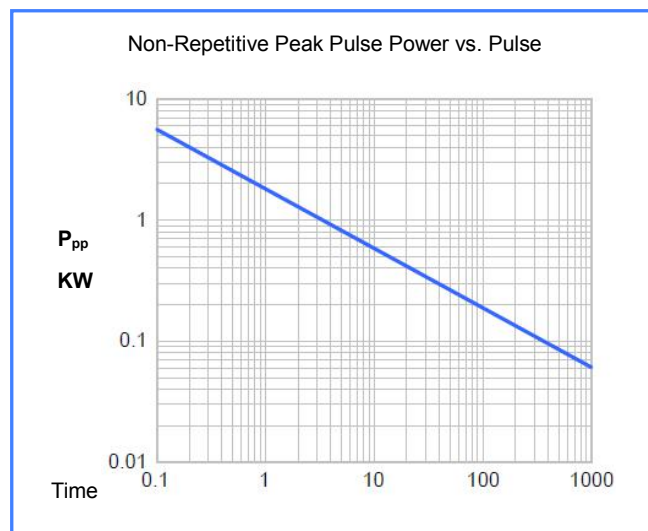
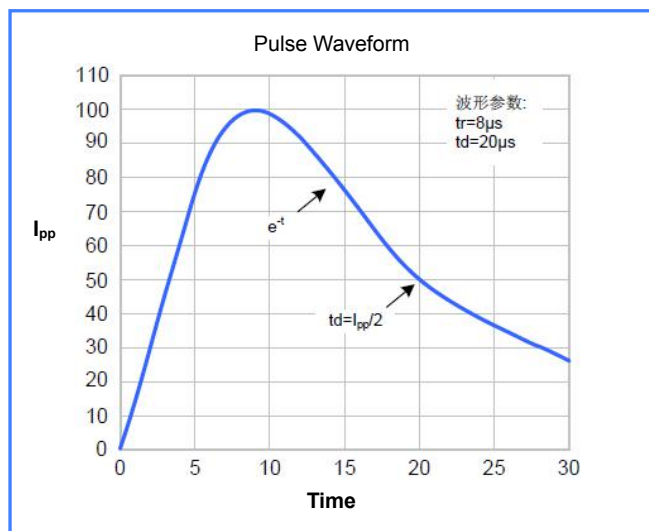
Maximum Ratings (TA=25°C unless otherwise noted)

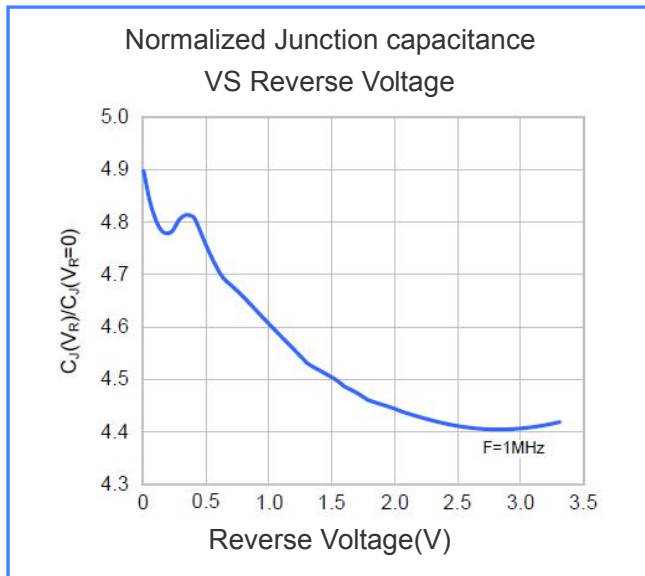
Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20\mu\text{s}$)	PPP	450	Watts
Peak Current ($t_p = 8/20\mu\text{s}$)	IPP	25	A
IEC61000-4-2(contact)	VESD1	± 30	KV
IEC61000-4-2(air)	VESD2	± 30	KV
Operating Temperature Range	Topr	-55...+125	°C
Storage Temperature Range	Tstg	-55...+150	°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Reverse Standoff Voltage	V_{RWM}	I/O-GND			3.3	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	3.8			V
Reverse Leakage Current	I_R	$V_{RWM}=3.3V$			1	μA
Clamping Voltage, Line-Ground positive pulse	V_{C1}	$I_{pp}=5A$ $t_p=8/20\mu s$		5	6	V
	V_{C1}	$I_{pp}=25A$ $t_p=8/20\mu s$		12	16	V
Clamping Voltage, Line-Ground Negative pulse	V_{C2}	$I_{pp}=5A$ $t_p=8/20\mu s$		1.4		V
	V_{C2}	$I_{pp}=25A$ $t_p=8/20\mu s$		4.6		V
Diode Capacitance(I/O-I/O)	C_{J1}	$V_R=0V$ $f=1MHz$		2	3	pF
Diode Capacitance(I/O-GND)	C_{J2}	$V_R=0V$ $f=1MHz$		3.5	5.0	pF

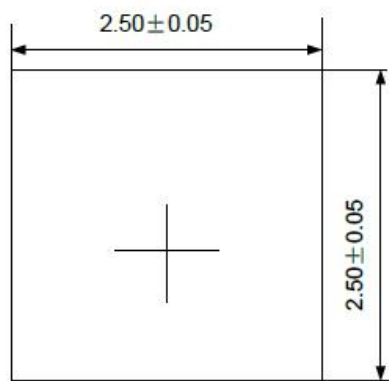
Characteristic Curves



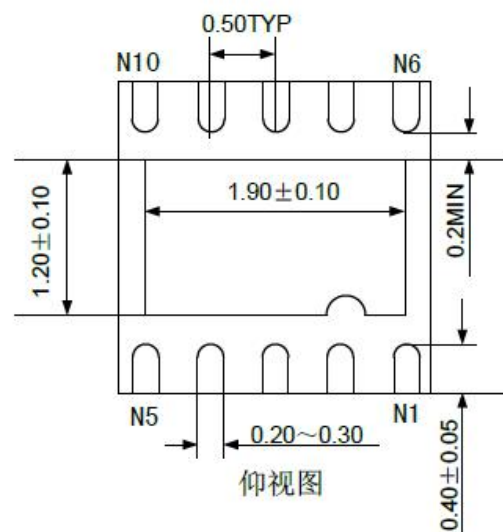


Package Dimensions

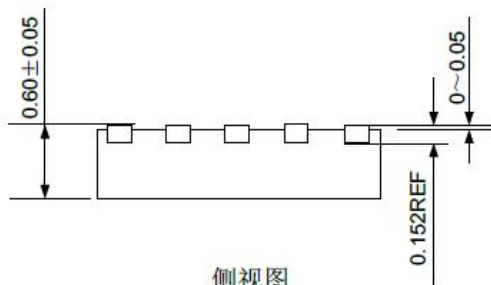
DFN-10-2.5×2.5×0.6-0.5



俯视图

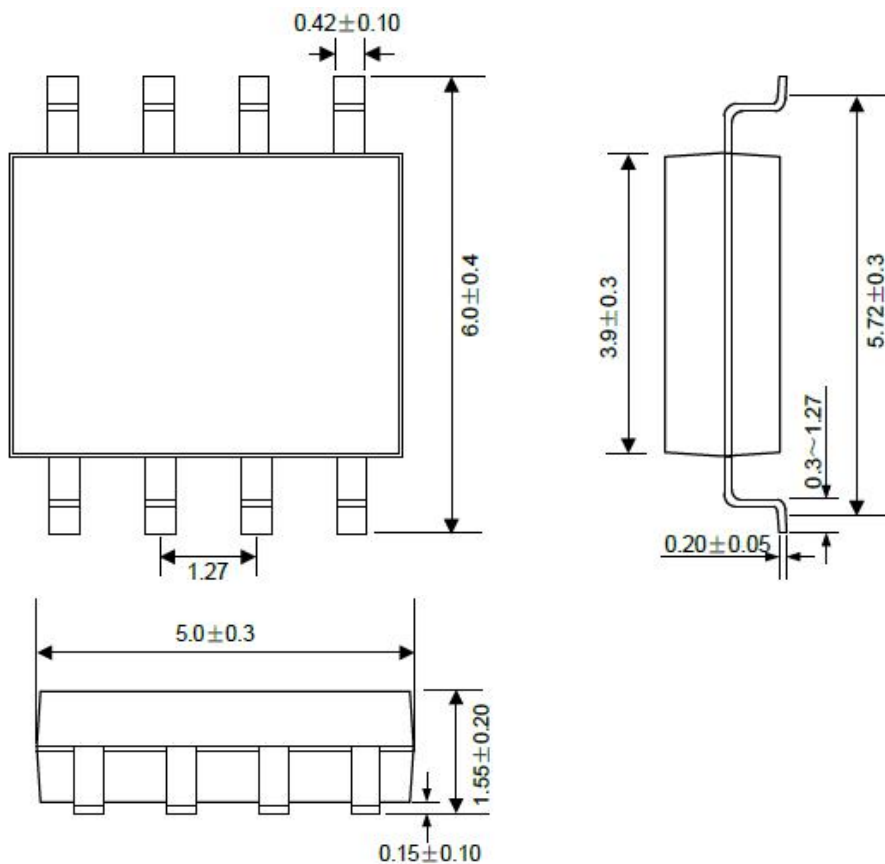


仰视图



侧视图

SOP-8-225-1.27



Disclaimer

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.