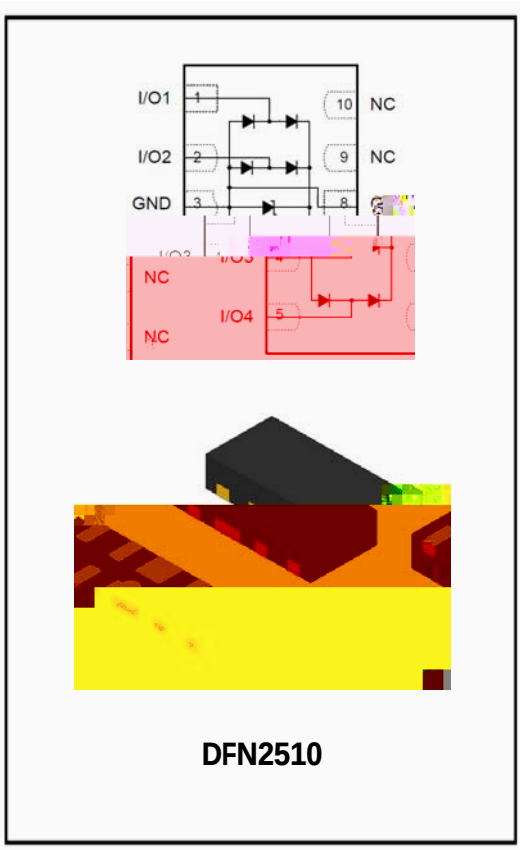
4-Line, Uni-directional, Ultra-low Capacitance, Transient Voltage Suppressor



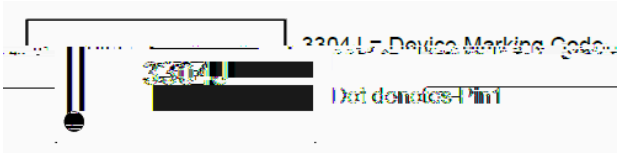
DFN2510

Features

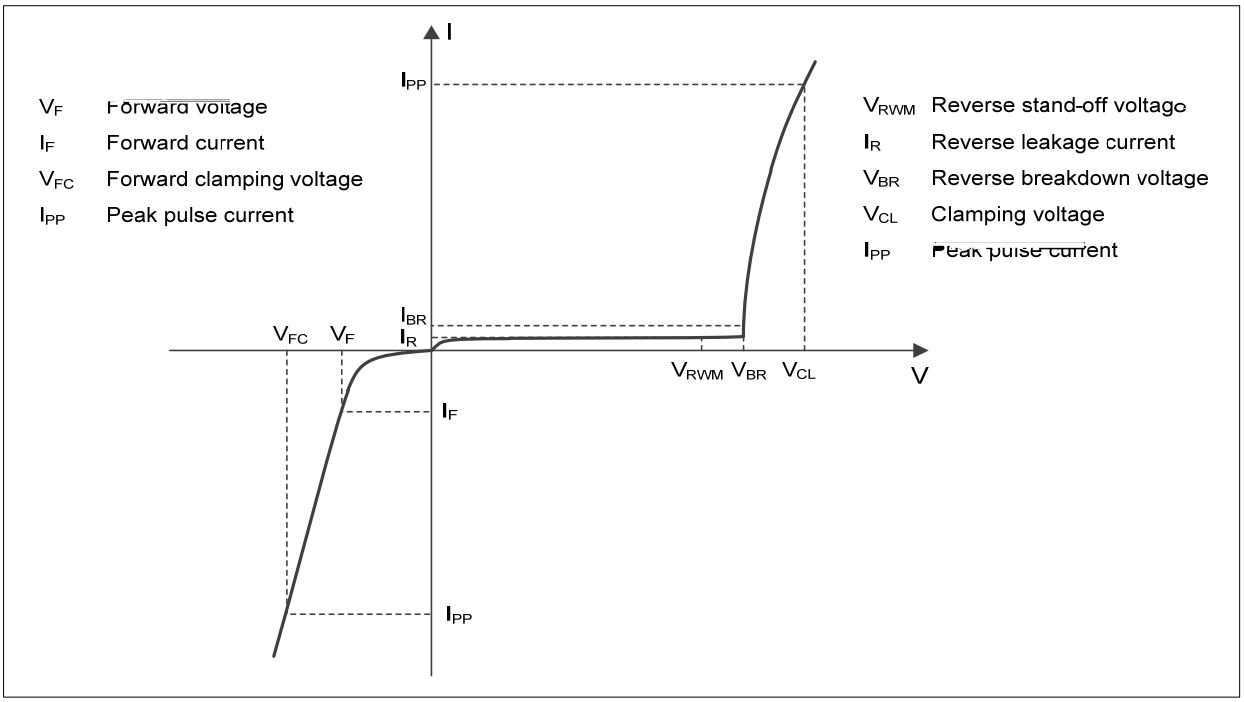
- ð **Operating voltage： 3.3V**
- ð **Transient protection for each line according to**
  IEC61000-4-2(ESD)： Ñ20kV (contact)
  IEC61000-4-5(surge)： 6A (8/20μs)
- ð **Ultra low leakage**
- ð **Low clamping voltage**
- ð **Up to 4 lines protects**
- ð **RoHS Compliant**

Applications

- HDMI1.3 /1.4, USB 2.0/3.0 Type C
- Monitors and flat panel displays
- Set-top box and Digital TV
- MDDI ports
- Video graphics cards
- Digital Video Interface (DVI)
- Notebook Computers
- PCI Ey. tes the cathode end



■Definitions of electrical characteristics



■Maximum Ratings

PARAMETER	SYMBOL	LIMITS	UNIT
Peak pulse power (t_p = 8/20μs)	P_{pk}	60	W
Peak pulse current (t_p = 8/20μs)	I_{PP}	6	A
ESD according to IEC61000-4-2 air discharge	V_{ESD}	±25	KV
ESD according to IEC61000-4-2 contact discharge		±20	
Junction temperature	T_J	125	°C
Storage temperature	T_{STG}	-55~150	°C

■Electrical Characteristics T_a=25 Unless otherwise specified

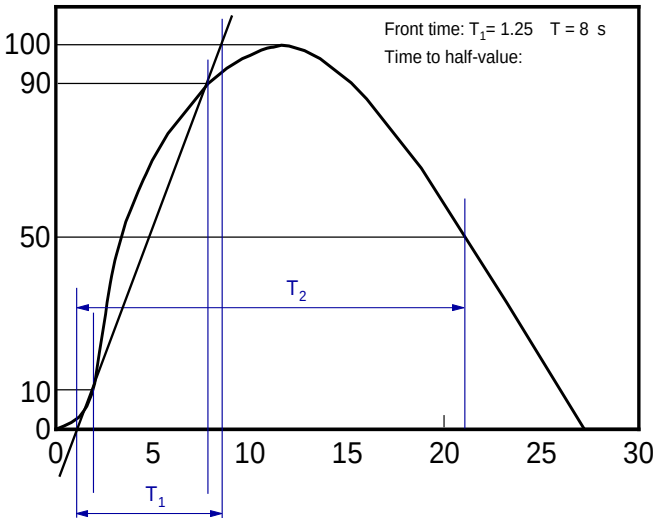
PARAMETER	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse maximum working voltage	V_{RWM}	V	Any I/O pin to ground			3.3
Reverse leakage current	I_R	nA	V_{RWM} = 3.3V, any I/O pin to ground			200
Reverse breakdown voltage	$V_{(BR)}$	V	I_T = 1mA, any I/O pin to ground	3.5		
Clamping voltage	V_{CL}	V	I_{PP} = 1A, t_p = 8/20μs			7
		V	I_{PP} = 6A, t_p = 8/20μs			10
Junction capacitance	CJ	pF	V_R = 0V, f = 1MHz Any I/O pin to GND		0.6	1.0
			V_R = 0V, f = 1MHz Between I/O pins		0.4	

■Ordering Information (Example)

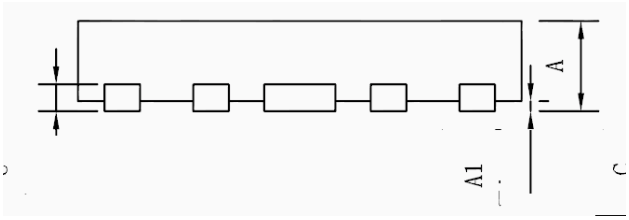
PREFERED P/N	PACKING CODE	UNIT WEIGHT(mg)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
3304J	F1	Approximate 3.48	3000	30000	120000	7 reel

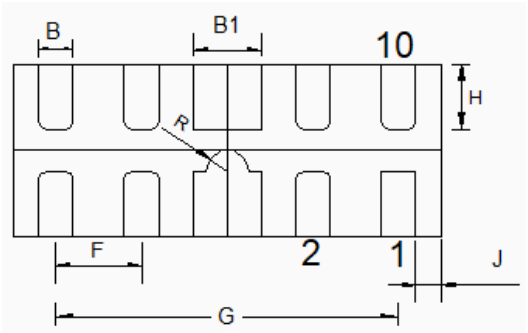
■ **Characteristics** (Typical)

Fig.1 8/20μs waveform per IEC61000-4-5



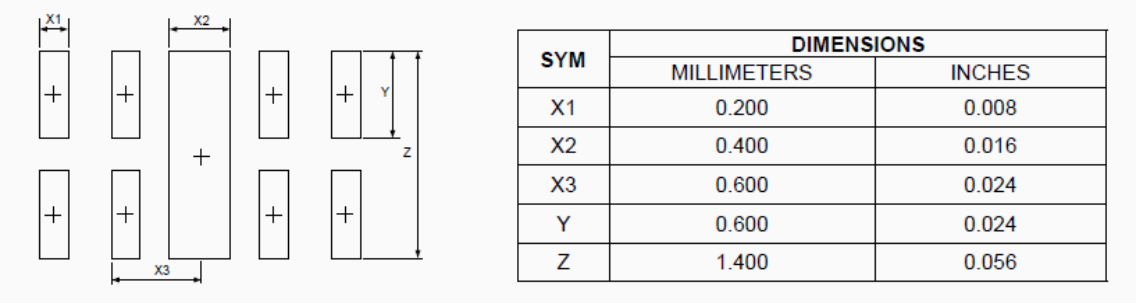
■ Outline Dimensions





SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.40	0.45	0.50
A1	--	0.02	0.05
B	0.15	0.20	0.25
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	0.15	0.20
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

■ Soldering Footprint



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
X1	0.200	0.008
X2	0.400	0.016
X3	0.600	0.024
Y	0.600	0.024
Z	1.400	0.056

Notes:
This recommended land pattern is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met.

Disclaimer

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