



# SE05L6BPDA

## ESD Protection Diode

### FEATURES

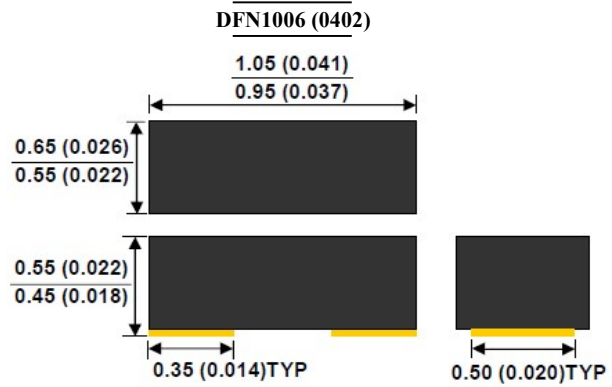
- Meet IEC61000-4-2 (ESD)±15kV (air),±8kV (contact)
- Protects one bi-directional I/O line
- Working Voltage : 5V, typical capacitance :0.3pF
- Suffix "H" indicates Halogen-free parts, ex. SE05L6BPDAH

### APPLICATIONS

- Cell Phone Handsets and Accessories
- Notebooks, Desktops, and Servers
- PCI express, SATA, USB 2.0,DVI, Display port
- Portable Instrumentation

### MECHANICAL DATA

Case : DFN1006(0402) mold package  
 Terminal : Au/Sn plated, solderable per  
 MIL-STD-750, method 2026  
 High temperature soldering guaranteed : 260°C/10second



Dimensions in inches and (millimeters)

### PIN CONFIGURATION



### Maximum Ratings (Rating at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Units
Peak Pulse Power (tp=8/20µs waveform)	P <sub>PP</sub>	30	W
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	±15	kV
ESD per IEC 61000-4-2 (Contact)		±8	
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C



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### *Electrical Characteristics (Rating at 25°C ambient temperature unless otherwise specified)*

Parameter	Symbol	Min	Typ.	Max	Units
Reverse Stand-Off Voltage	$V_{RWM}$	-	-	5	V
Reverse Breakdown Voltage	$I_R = 1\text{mA}$ $V_{(BR)}$	6.0	7.8	-	V
Reverse Leakage Current	$V_R = 5\text{V}$ $I_R$	-	-	50	nA
Clamping Voltage	$I_{pp} = 1\text{A}$ , $t_p = 8/20\mu\text{s}$ $V_C$	-	-	14	V
Junction Capacitance	Between I/O Pin and GND $V_R=0\text{V}$ , $f=1\text{MHz}$ $C_J$	-	0.3	0.6	pF

### **RATINGS AND CHARACTERISTIC CURVES**

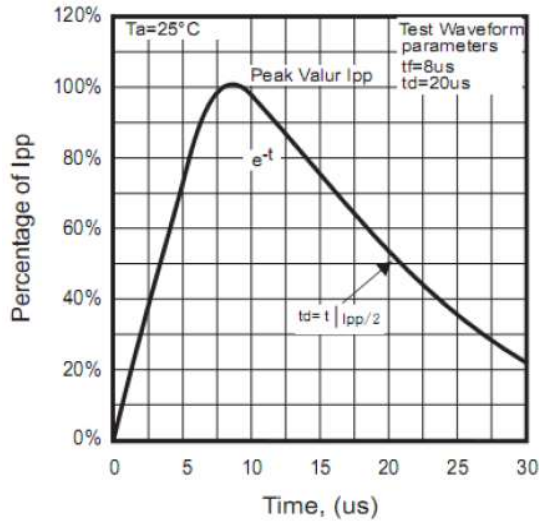


Fig.1 - 8/20 $\mu\text{s}$  Peak Pulse Current Wave Form Acc. IEC 61000-4-5

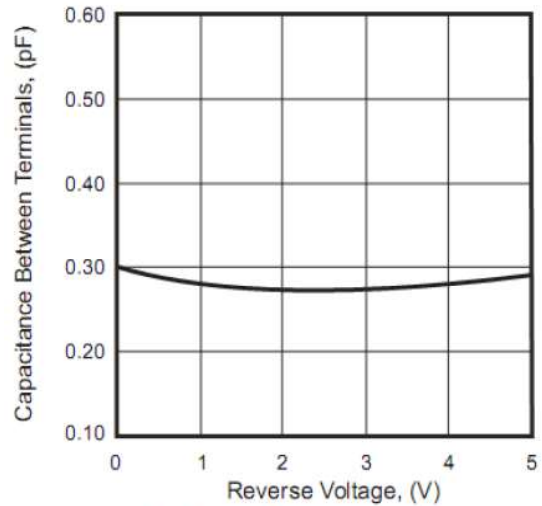


Fig.2 - Typical Capacitance Between Terminals Characteristics

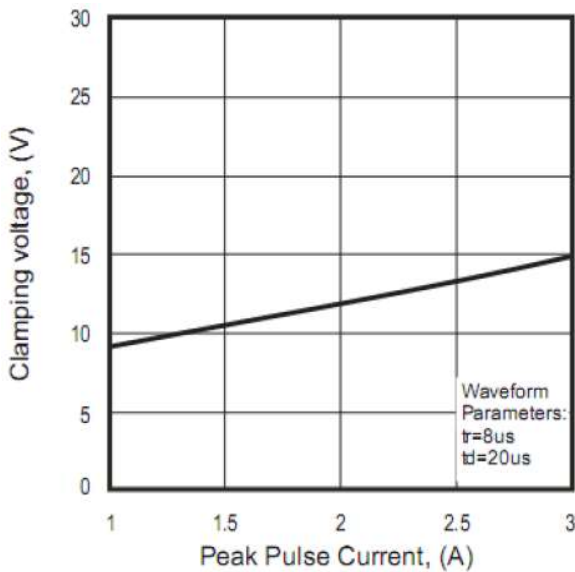


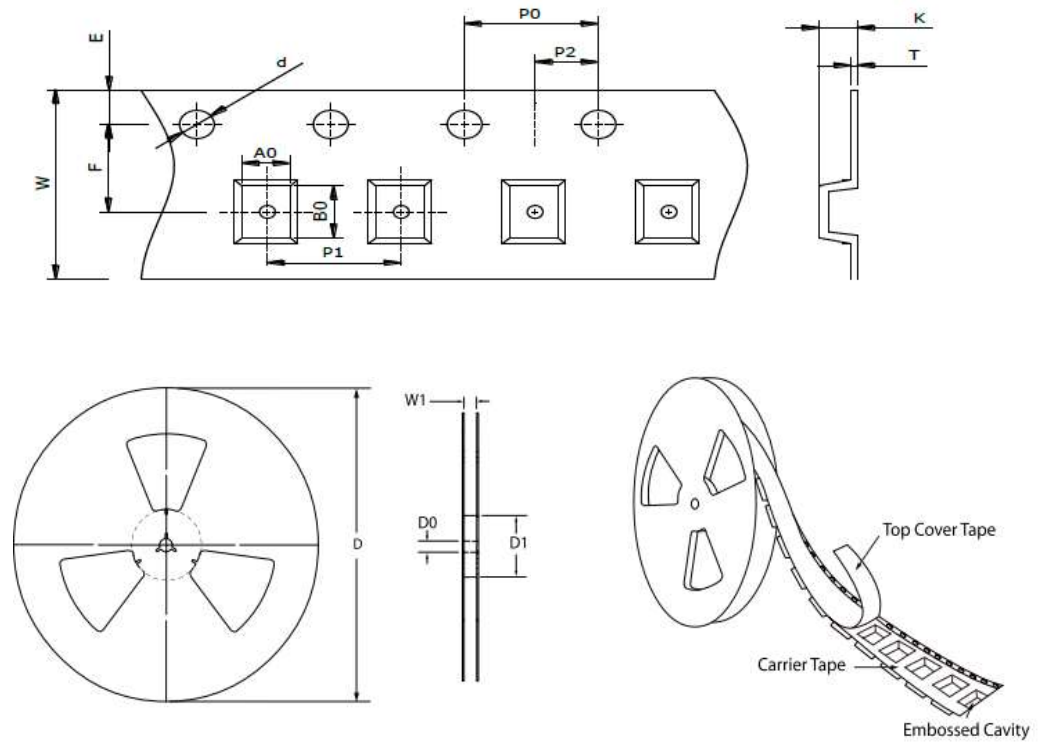
Fig.3 - Clamping Voltage Vs. Peak Pulse Current



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### TAPE & REEL SPECIFICATION



Item	Symbol	DFN1006 (0402)
Carrier width	A <sub>0</sub>	0.67 ± 0.10
Carrier length	B <sub>0</sub>	1.12 ± 0.10
Carrier depth	K	0.60 ± 0.10
Sprocket hole	d	1.50 ± 0.10
Reel outside diameter	D	178.00 ± 2.00
Feed hole width	D <sub>0</sub>	13.00 ± 0.20
Reel inner diameter	D <sub>1</sub>	MIN. 54.00
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.10
Sprocket hole pitch	P <sub>0</sub>	4.00 ± 0.10
Punch hole pitch	P <sub>1</sub>	4.00 ± 0.10
Embossment center	P <sub>2</sub>	2.00 ± 0.10
Overall tape thickness	T	0.22 ± 0.05
Tape width	W	8.00 ± 0.20
Reel width	W <sub>1</sub>	MAX. 13.50

### ORDER INFORMATION

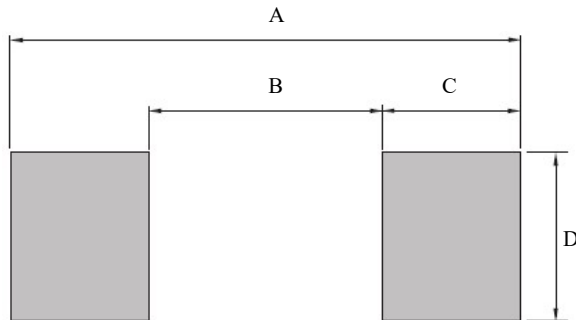
Package	Reel Size	Quantity
DFN1006 (0402)	7"	10,000



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### SUGGESTED SOLDER PAD LAYOUT



Unit : mm

PACKAGE	A	B	C	D
DFN1006 (0402)	1.30	0.30	0.50	0.70