



# SE05L3BDDDBH

## ESD PROTECTION DIODE

### FEATURES

- High Reliability
- Bi-directional ESD Protection
- Suffix " H " indicated Halogen-free part, ex.SE05L3BDDDBH

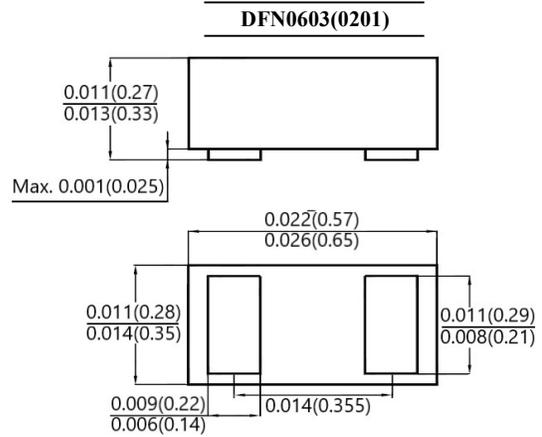
### APPLICATIONS

- Cellular handsets and accessories
- Data lines

### MECHANICAL DATA

Case : DFN0603(0201)

### PIN CONFIGURATION



**Dimensions in inches and (millimeters)**

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

Parameter	Symbol	Value	Units
Peak Pulse Power ( $t_p=8/20\mu s$ )	$P_{PP}$	45	W
Peak Pulse Current ( $t_p=8/20\mu s$ )	$I_{PP}$	4	A
ESD per IEC 61000-4-2 (Air)	$V_{ESD}$	$\pm 20$	kV
ESD per IEC 61000-4-2 (Contact)		$\pm 20$	
Junction Temperature	$T_J$	125	°C
Storage Temperature Range	$T_{STG}$	-55 to +150	°C



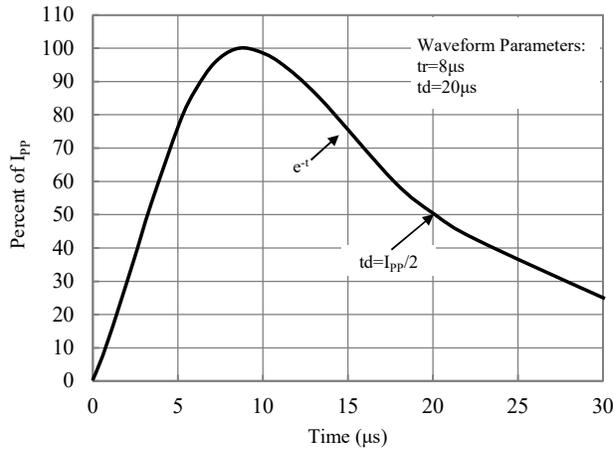
# SE05L3BDDDBH

## ESD PROTECTION DIODE

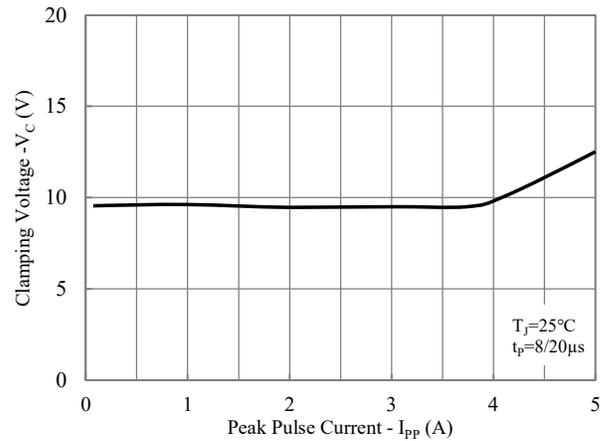
**Electrical Characteristics (Rating at 25°C ambient temperature unless otherwise specified)**

Parameter	Test Condition	Symbol	Min	Typ	Max	Units
Reverse Stand-Off Voltage	-	$V_{RWM}$	-	-	5	V
Reverse Breakdown Voltage	$I_R=1\text{mA}$	$V_{(BR)R}$	6.0	-	11.5	V
Reverse Leakage Current	$V_{RWM}=5\text{V}$	$I_R$	-	-	50	nA
Clamping Voltage	$I_{pp}=4\text{A}, t_p=8/20\mu\text{s}$	$V_C$	-	-	11.5	V
	$I_{pp}=8\text{A}, t_p=100\text{ns}$		-	11.0	-	
	$I_{pp}=15\text{A}, t_p=100\text{ns}$		-	15.0	-	
Junction Capacitance	$V_R=0\text{V}, f=1\text{MHz}$	$C_J$	-	-	0.35	pF

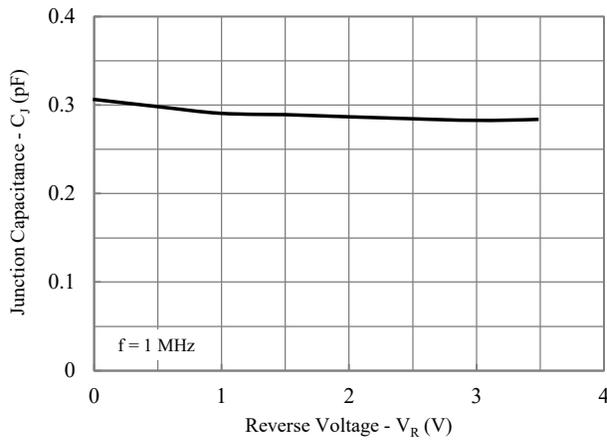
### RATINGS AND CHARACTERISTIC CURVES



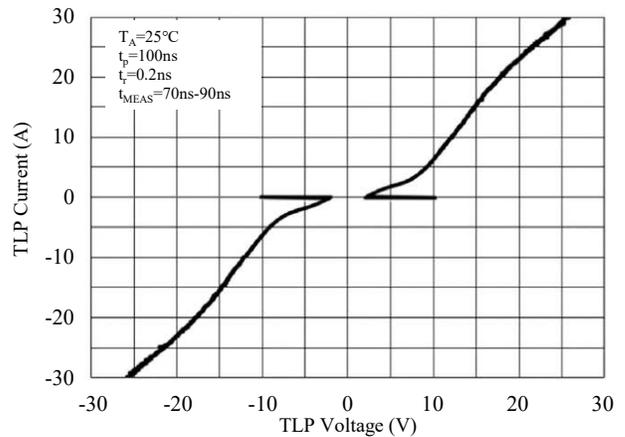
**Fig.1-Pulse Waveform**



**Fig.2-Clamping Voltage vs. Peak Pulse Current**



**Fig.3-Junction Capacitance vs. Reverse Voltage**



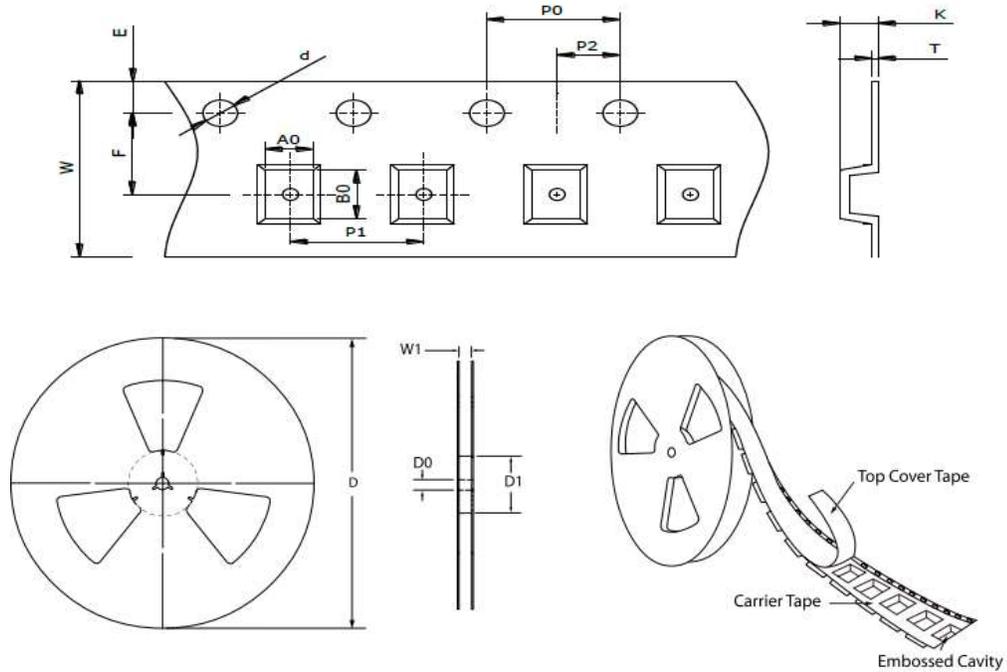
**Fig.4-TLP Curve**



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### TAPE & REEL SPECIFICATION



Item	Symbol	DFN0603(0201)
Carrier width	A <sub>0</sub>	0.40 ± 0.10
Carrier length	B <sub>0</sub>	0.70 ± 0.10
Carrier depth	K	0.38 ± 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 ± 0.50
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>	2.00 ± 0.10
Embossment center	P <sub>2</sub>	2.00 ± 0.10
Overall tape thickness	T	MAX. 0.60
Tape width	W	8.00 ± 0.30
Reel width	W <sub>1</sub>	8.40 ± 1.50

### ORDER INFORMATION

Package	Reel Size	Quantity
DFN0603(0201)	7"	10,000

### MARKING CODE

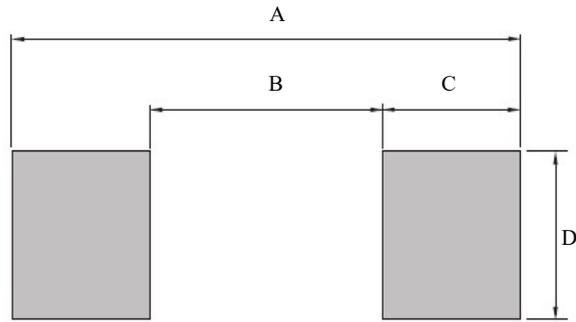
Part Number	Marking Code
SE05L3BDDDBH	5D



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## ESD PROTECTION DIODE

### SUGGESTED SOLDER PAD LAYOUT



Unit:mm

PACKAGE	A	B	C	D
DFN0603 (0201)	0.675	0.175	0.25	0.27

