

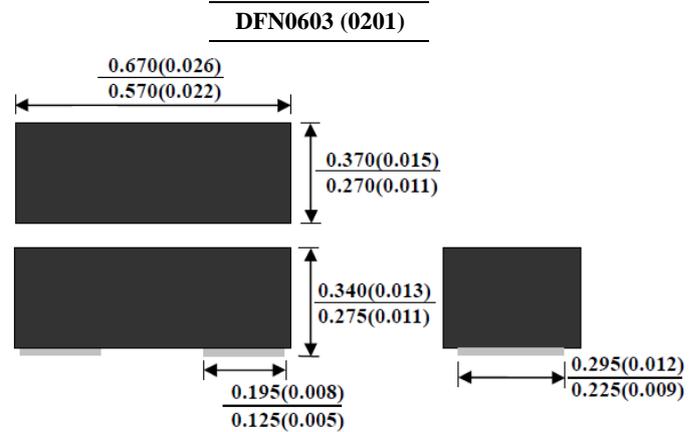


SE05S3BPDB

ESD PROTECTION DIODE

FEATURES

- Bi-directional ESD protection
- IEC61000-4-2 ±25kV(Contact), ±30kV(air)
- Ultra small SMD package:0201
- Operating voltage: 5V
- Suffix "H" indicates Halogen-free parts, ex. SE05S3BPDBH



Dimensions in millimeters and (inches)

APPLICATIONS

- Computers and peripherals
- High speed data lines
- Audio and video equipment
- Cellular handsets and accessories
- Portable electronics

MECHANICAL DATA

Case : DFN0603(0201) standard package

Terminals : Au / Sn plated, Solderable per MIL-STD-750,
method 2026

PIN CONFIGURATION



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

Parameter	Symbol	Value	Units
IEC 61000-4-2 ESD Voltage Air Model	V_{ESD}	±30	KV
Contact Model		±25	
Peak Pulse Power $t_p=8/20$ us	P_{PP}	50	W
Operating Junction Temperature	T_j	-55 to +125	°C
Storage Temperature Range	T_{stg}	-55 to +150	°C



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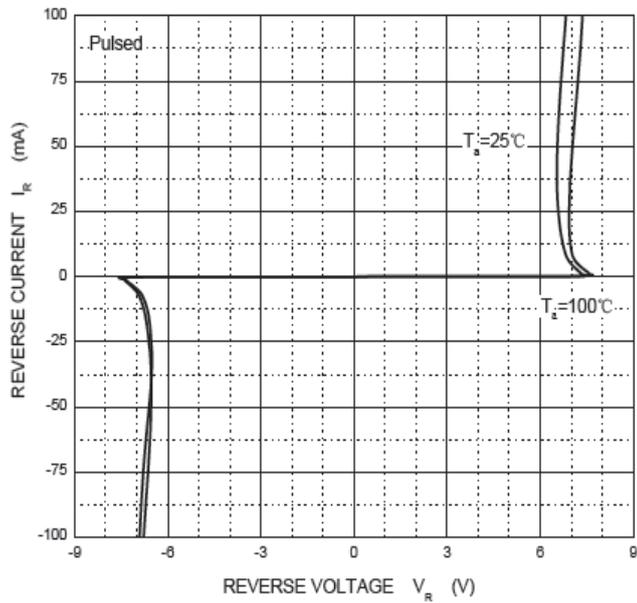
ESD PROTECTION DIODE

Electrical Characteristics ($T_a=25^\circ\text{C}$ unless otherwise specified)

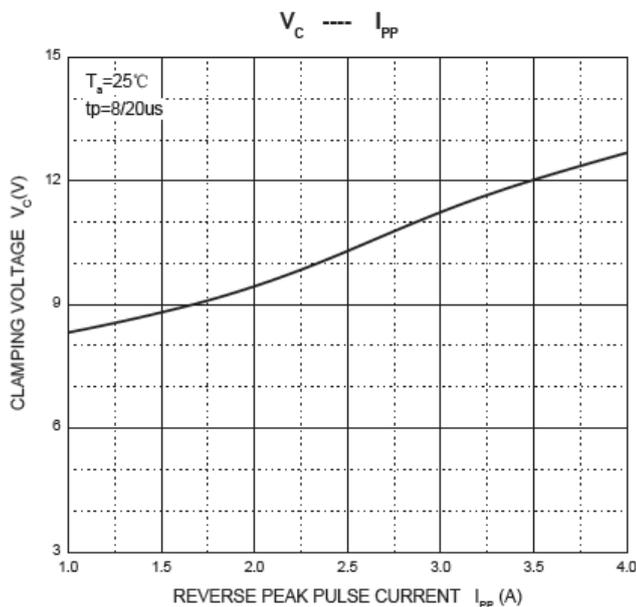
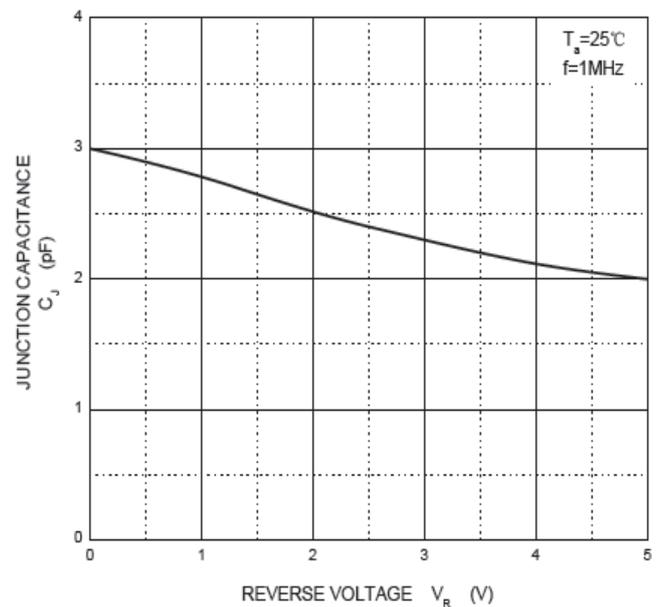
Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Maximum Peak Pulse Current $t_p=8/20\ \mu\text{s}$		I_{PP}	3.5	-	-	A
Reverse stand off voltage	-	V_{RWM}	-	-	5	V
Reverse leakage current	$V_{RWM}=5\text{V}$	I_R	-	-	1	μA
Reverse breakdown voltage	$I_T=1\text{mA}$	$V_{(BR)}$	-	-	9	V
Clamping voltage	$I_{pp}=1\text{A}, t_p=8/20\ \mu\text{s}$	V_C	-	-	12	V
	$I_{pp}=3\text{A}, t_p=8/20\ \mu\text{s}$		-	-	17	V
Junction capacitance	Between I/O Pin and GND $V_R=0\text{V}, f=1\text{MHz}$	C_J	-	3	10	pF

RATINGS AND CHARACTERISTIC CURVES

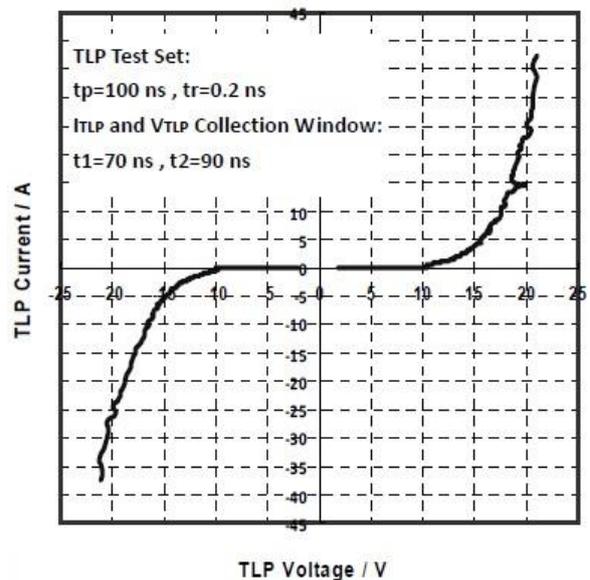
Reverse Characteristics



Capacitance Characteristics



TLP Measurement

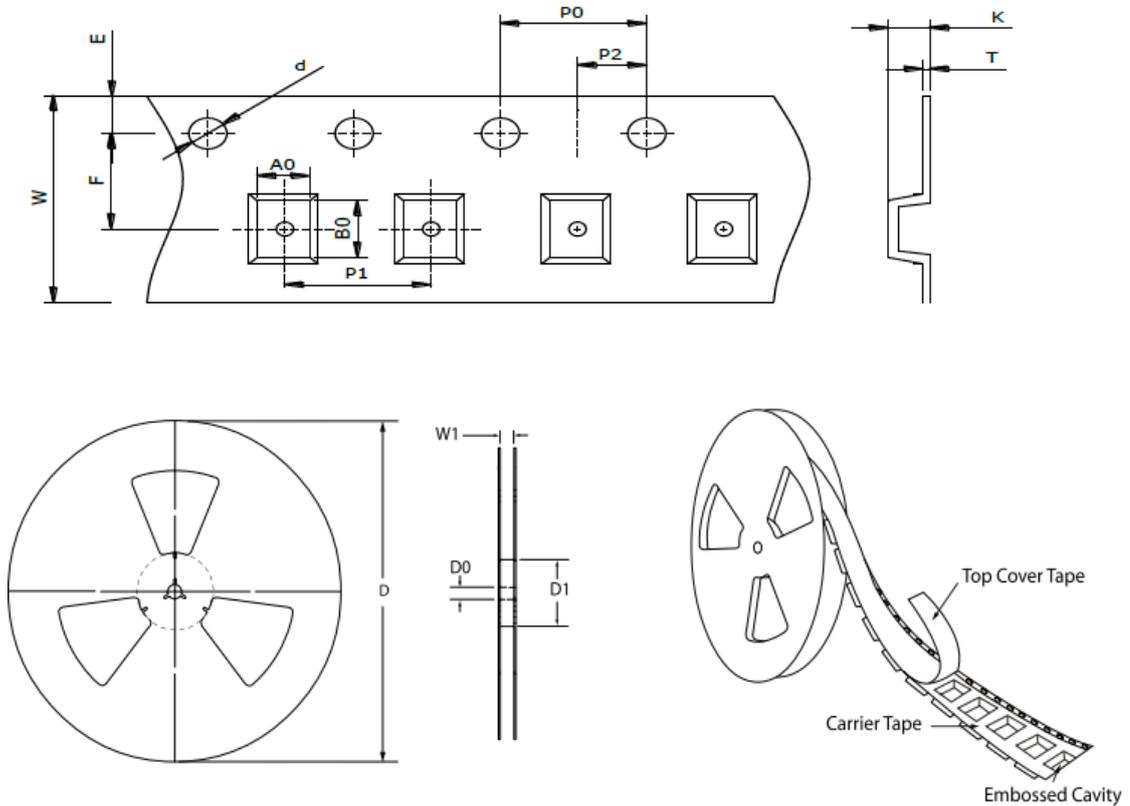




SE05S3BPDB

ESD PROTECTION DIODE

TAPE & REEL SPECIFICATION



Unit:mm

Item	Symbol	DFN0603 (0201)
Carrier width	A ₀	0.37 ± 0.05
Carrier length	B ₀	0.67 ± 0.05
Carrier depth	K	0.50 ± 0.05
Sprocket hole	d	1.50 ± 0.10
Reel outside diameter	D	178.00 ± 2.00
Feed hole width	D ₀	13.00 ± 0.20
Reel inner diameter	D ₁	MIN. 54.00
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.10
Sprocket hole pitch	P ₀	4.00 ± 0.10
Punch hole pitch	P ₁	2.00 ± 0.10
Embossment center	P ₂	2.00 ± 0.10
Overall tape thickness	T	0.18 ± 0.05
Tape width	W	8.00 ± 0.20
Reel width	W ₁	MAX. 13.50

ORDER INFORMATION

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

MARKING CODE

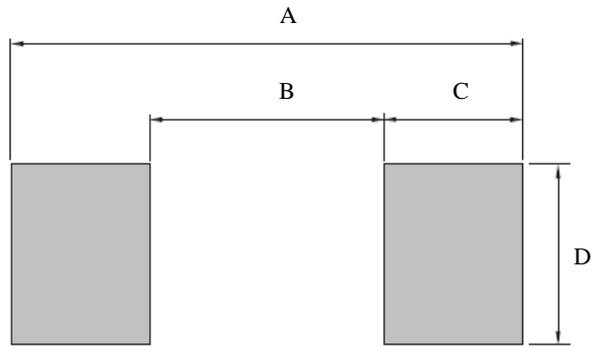
Part Number	Marking Code
SE05S3BPDB	



SE05S3BPDB

ESD PROTECTION DIODE

SUGGESTED SOLDER PAD LAYOUT



PACKAGE	A	B	C	D
DFN0603 (0201)	0.64	0.20	0.22	0.36