



SE03S7BDDAH

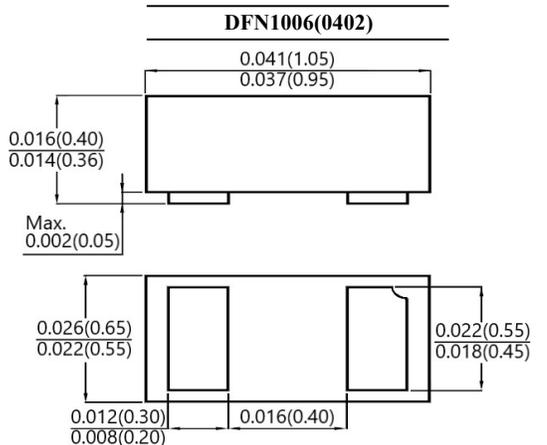
ESD PROTECTION DIODE

FEATURES

- IEC61000-4-2(ESD) 30kV(air), 30kV(Contact)
- Bi-directional
- Protects one data line
- Suffix " H " indicated Halogen-free part, ex.SE03S7BDDAH

MECHANICAL DATA

Case : DFN1006(0402) mold package



PIN CONFIGURATION



Dimensions in inch and (millimeter)

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}	40	W
Peak Pulse Current ($t_p=8/20\mu s$)	I_{PP}	5	A
ESD per IEC 61000-4-2 (Air)	V_{ESD}	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	T_J	-40 to +125	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C



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Electrical Characteristics Per line @ 25°C Unless Otherwise Specified

Parameter	Test Condition	Symbol	Min	Typ	Max	Units
Reverse Stand-Off Voltage	-	V_{RWM}	-	-	3.3	V
Punch-Through Voltage	$I_{PT}=2\mu A$	V_{PT}	3.5	-	4.3	V
Snap-Back Voltage	$I_{SB}=50mA$	V_{SB}	2.8	-	-	V
Reverse Leakage Current	$V_{RMW}=3.3V$	I_R	-	-	50	nA
Clamping Voltage	$I_{PP}=1A, t_p=8/20\mu s$	V_C	-	-	6.5	V
	$I_{PP}=5A, t_p=8/20\mu s$		-	-	8.0	
Junction Capacitance	$V_R=0V, f=1MHz$	C_J	-	-	7	pF

RATINGS AND CHARACTERISTIC CURVES

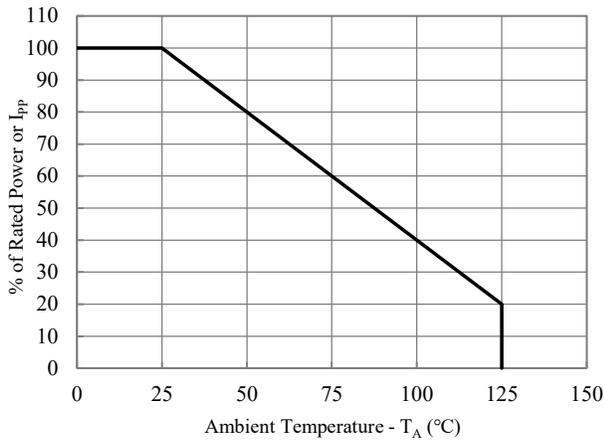


Fig.1-Power Derating Curve

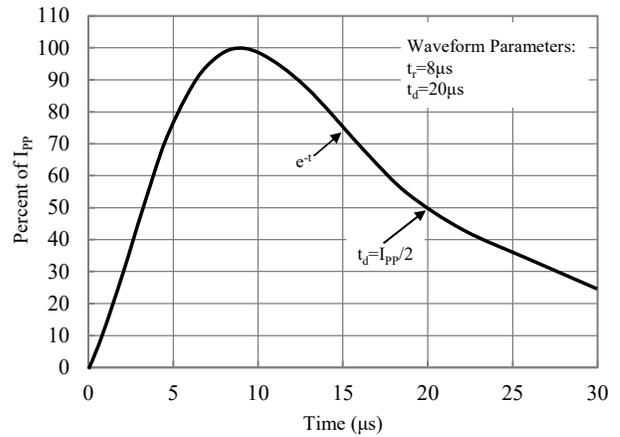


Fig.2-Pulse Waveform

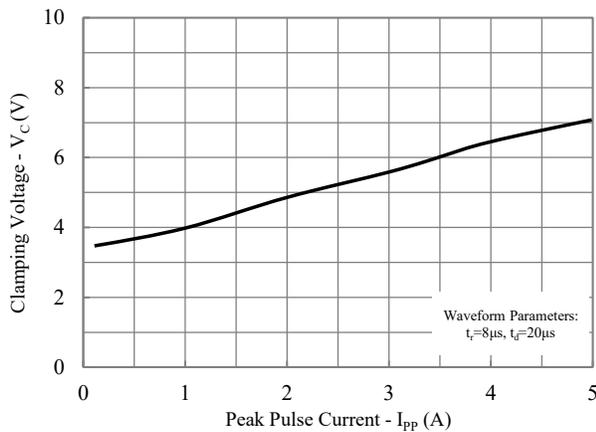


Fig.3-Clamping Voltage VS. Peak Pulse Current

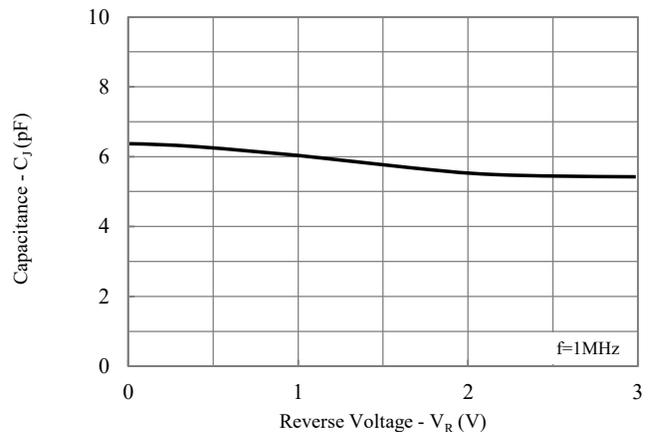


Fig.4-Junction Capacitance VS. Reverse Voltage



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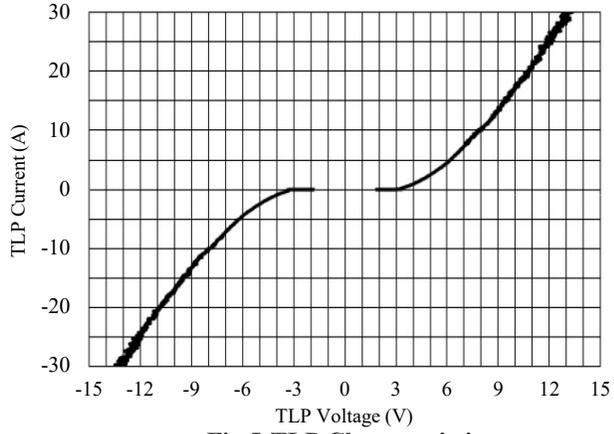


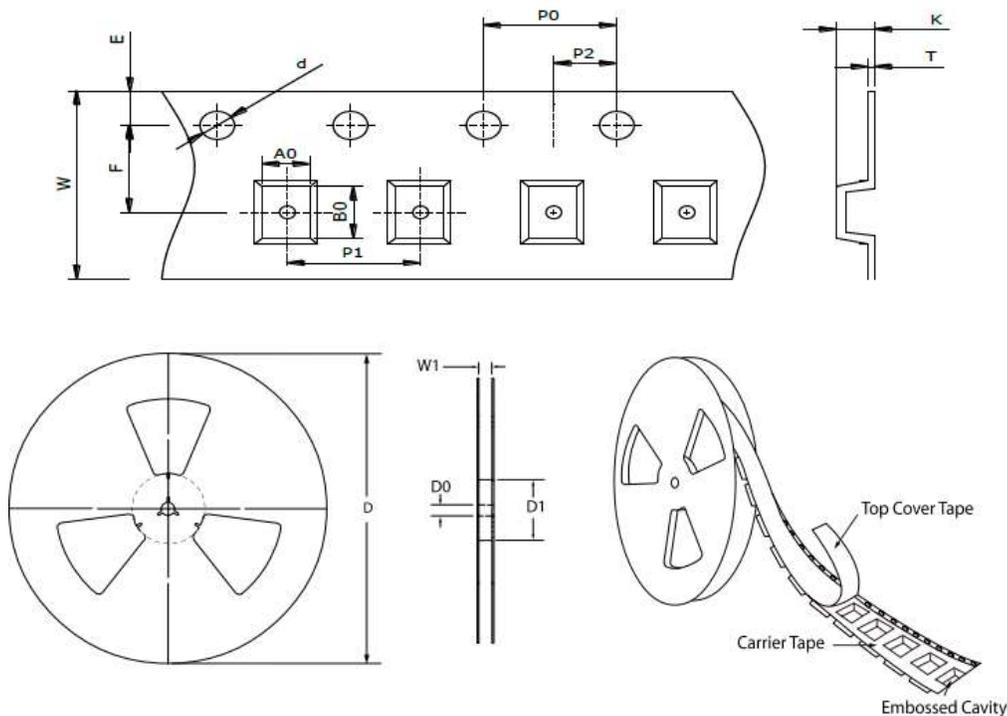
Fig.5-TLP Characteristic



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TAPE & REEL SPECIFICATION



Item	Symbol	DFN1006(0402)
Carrier width	A ₀	0.70 ± 0.10
Carrier length	B ₀	1.10 ± 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 ₀	13.00 ± 0.50
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	MAX. 0.60
Tape width	W	8.00 ± 0.30
Reel width	W ₁	8.40 ± 1.50

ORDER INFORMATION

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

MARKING CODE

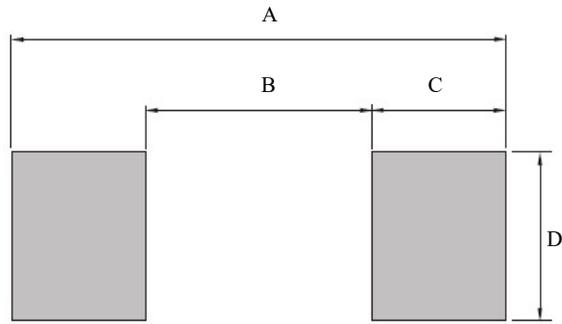
Part Number	Marking Code
SE03S7BDDAH	31



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SUGGESTED SOLDER PAD LAYOUT



Unit:mm

Package	A	B	C	D
DFN1006(0402)	1.10	0.30	0.40	0.60