

Specification Status: Preliminary

BENEFITS

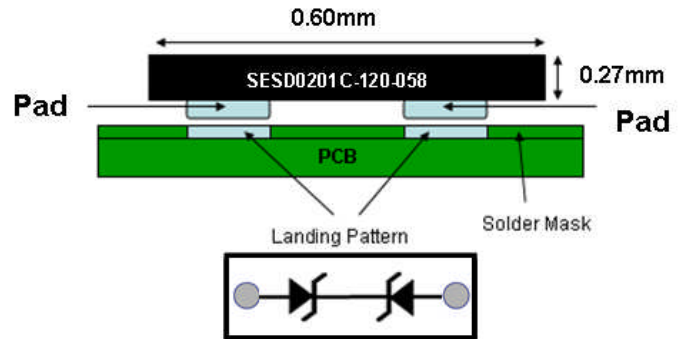
- Small-size bi-directional ESD protection diodes
- Optimized for ESD protection in space constrained portable electronics and mobile handsets
- Bi-directional operation enables worry-free orientation on PCB
- Helps protect electronic circuits against damage from Electro-Static Discharge (ESD) events
- Assist equipment to pass IEC61000-4-2, level 4 testing
- RoHS compliant and Halogen Free

FEATURES

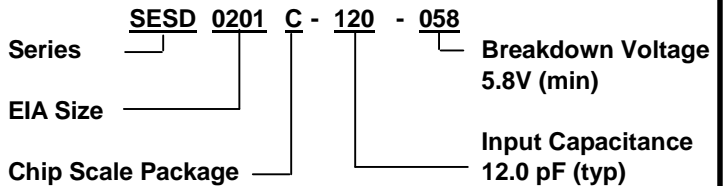
- Input capacitance – 12pF (typ)
- Low leakage current – 1.0uA (max)
- Low breakdown voltage – 5.8V (min)
- ESD maximum rating per IEC61000-4-2 standard
 - ± 8kV contact discharge
 - ± 15kV air discharge
- Capable of withstanding numerous ESD strikes
- Small package size: 0.60mm x 0.30mm
- Low package height: 0.31mm (max)

APPLICATIONS

- Cellular phones and portable electronics
- Digital cameras and camcorders
- Keypads, Pushbuttons, Low voltage DC lines, Speakers, headphones, microphones
- Applications requiring high ESD performance in an ultra-small package



PART NUMBERING



MATERIALS INFORMATION

RoHS Compliant



ELV Compliant



Halogen Free *

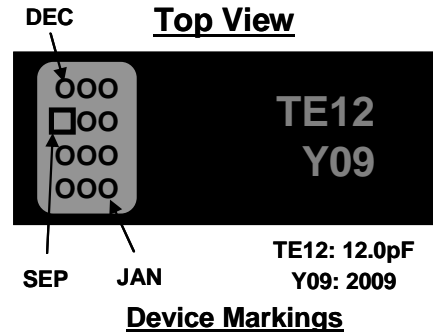
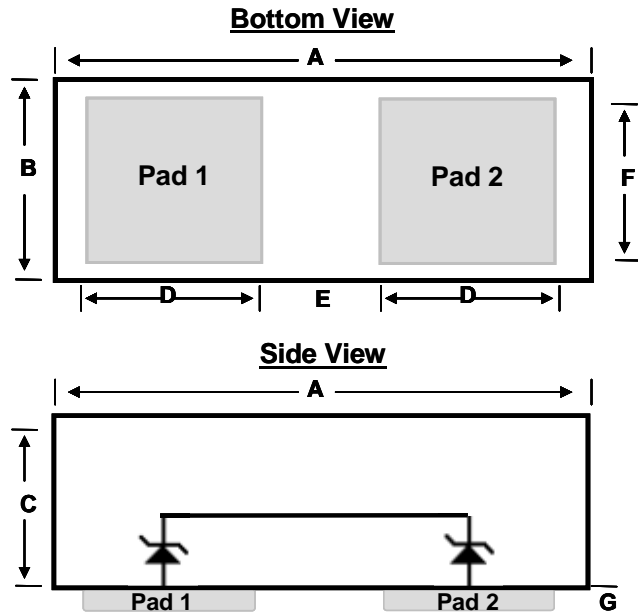


* Halogen Free refers to: Br≤900ppm, Cl≤900ppm, Br+Cl≤1500ppm

Device Characteristics @ T = 25°C	Min	Typ	Max	Unit
Input Capacitance @ V _r = 0V, f = 1MHz	--	12.0	13.5	pF
Working Reverse Voltage (peak) - V _{wrv}	--	--	5.0	V
Breakdown Voltage – V _{br} @ I _t = 1mA ⁽¹⁾	5.8	--	--	V
Leakage current @ V _{wrv} = 5.0V	--	--	1.0	uA
ESD contact discharge per IEC61000-4-2 standard	--	--	±8	kV
ESD air discharge per IEC61000-4-2 standard	--	--	±15	kV
Operating (T _{junction}) and Storage Temperature Range	-40 to +125			°C

⁽¹⁾ V_{br} is measured at test current I_t

DEVICE DIMENSIONS

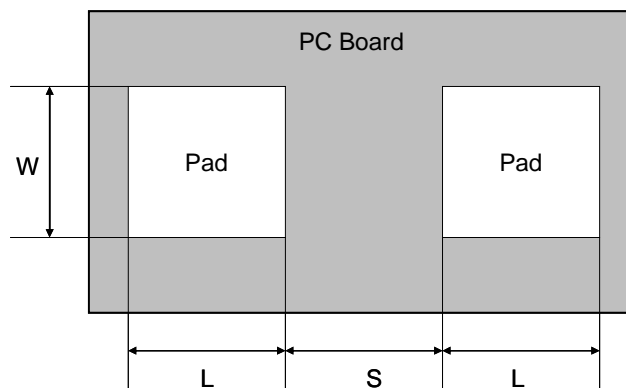


Drawings Not To Scale

	A	B	C	D	E	F	G
mm	0.6 ± 0.03	0.3 ± 0.03	0.27 ± 0.03	0.15 ± 0.03	0.25 ± 0.03	0.25 ± 0.03	0.01 (max)
mils*	23.62 ± 1.20	11.81 ± 1.20	10.63 ± 1.20	5.91 ± 1.20	9.84 ± 1.20	9.84 ± 1.20	0.197 (max)

* Round off approximation

RECOMMENDED LANDING PATTERN:



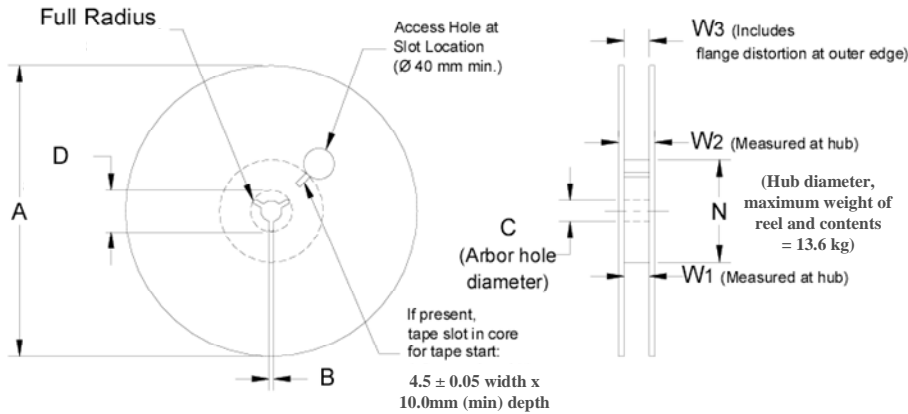
	L	S	W
mm	0.28 ± 0.01	0.19 ± 0.01	0.30 ± 0.01
mils*	11.0 ± 0.4	7.5 ± 0.4	11.8 ± 0.4

* Round off approximation

Packaging

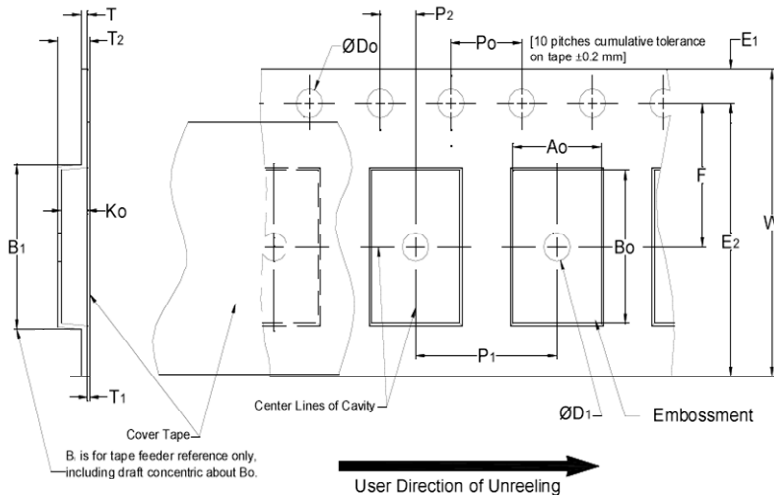
Device Packaging	Tape & Reel Quantity	Standard Box (MOQ)	Standard Box (POQ)
0201 CSP	5,000	15,000 (3 reels)	50,000 (10 reels)

Reel Dimensions



EIA Size	A	B	C	D	N	W ₁	W ₂	W ₃
mm	178 (max)	1.60 (min)	13.0 ± 0.2	20.2 (min)	50.0 (min)	9.15 ± 0.75	14.4 (max)	10.9 (max)

Embossed Carrier Tape Dimensions



- **Leader & Trailer:**
 - Leader tape: 400mm (min)
 - Trailer tape: 160mm (min)

Tape Dim	A ₀	B ₀	D ₀	D ₁	E ₁	E ₂	F	P ₀	P ₁	P ₂	W
mm	0.37 ± 0.03	0.67 ± 0.03	1.60 (max)	1.00 (min)	1.75 ± 0.10	5.85 (min)	3.50 ± 0.05	4.00 ± 0.10	2.00 ± 0.05	2.00 ± 0.10	8.00 ± 0.30
Thickness	B ₁	K ₀	T	T ₁	T ₂						
mm	0.67 ± 0.03	0.35 ± 0.03	0.60 (max)	0.10 (min)	1.05 ± 0.03						

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