

Specification Status: Released

BENEFITS

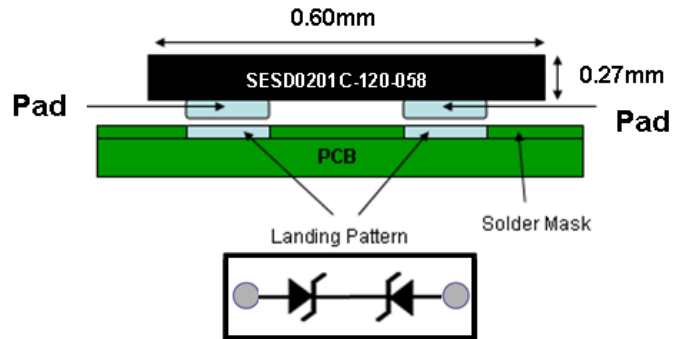
- Small-size bi-directional ESD protection diodes
- Appropriate for ESD protection in space-constrained portable electronics and mobile handsets
- Bi-directional operation allows placement on PCB without orientation constraint
- Helps protect electronic circuits against damage from Electrostatic Discharge (ESD) events
- Assist equipment to pass IEC61000-4-2, level 4 testing
- RoHS compliant and Halogen Free

FEATURES

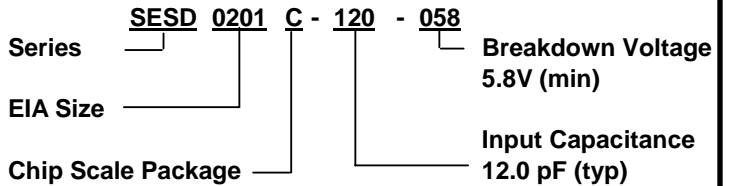
- Input capacitance – 12pF (typ)
- Low leakage current – 1.0µA (max)
- Low breakdown voltage – 5.8V (min)
- ESD maximum rating per IEC61000-4-2 standard
 - ± 8kV contact discharge
 - ± 15kV air discharge
- Capable of withstanding numerous ESD strikes
- Small package size: 0.60mm x 0.30mm
- Low package height: 0.27mm

APPLICATIONS

- Cellular phones and portable electronics
- Digital cameras and camcorders
- Keypads, pushbuttons, low voltage DC lines, speakers, headphones, microphones
- Applications requiring ESD performance in an ultra-small package



PART NUMBERING



MATERIALS INFORMATION

RoHS Compliant
ELV Compliant
Halogen Free *

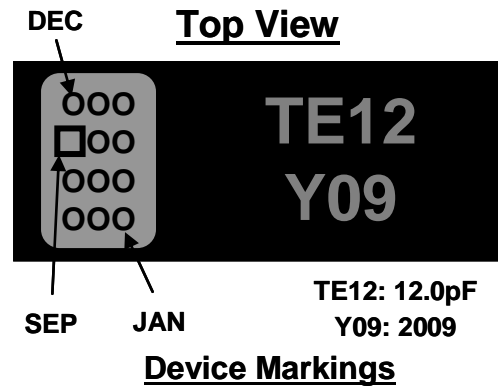
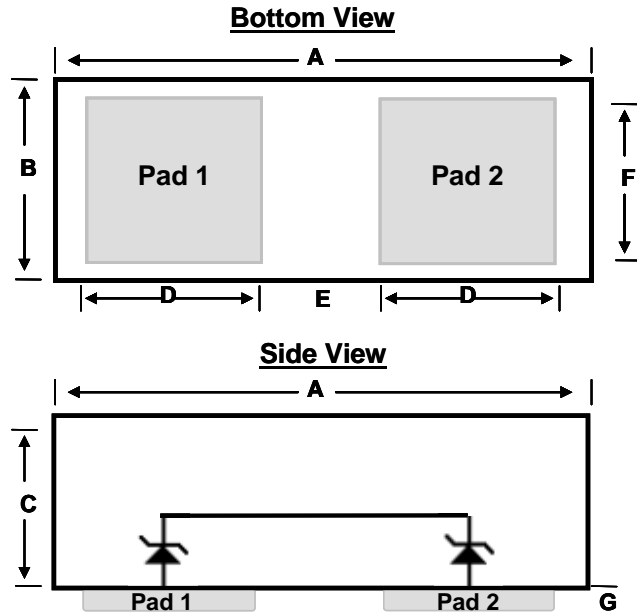
Directive 2000/53/EC Compliant
Directive 2002/95/EC Compliant
HF

* 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
Total Power Dissipation - Pd (on 30mm x 30mm FR-4)	--	--	250	mW
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

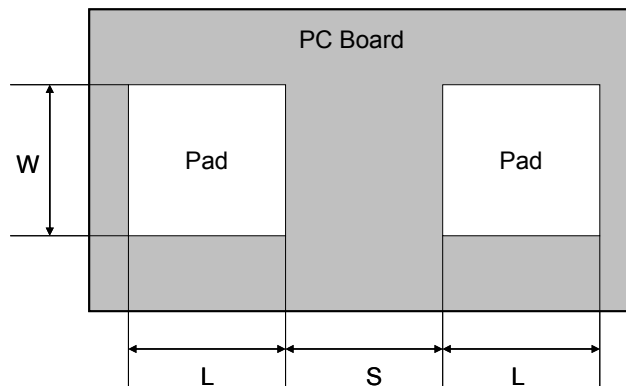


Drawings Not To Scale

	A	B	C	D	E	F	G
mm	0.60 ± 0.03	0.30 ± 0.03	0.27 ± 0.03	0.15 ± 0.03	0.25 ± 0.03	0.25 ± 0.03	0.005 (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:



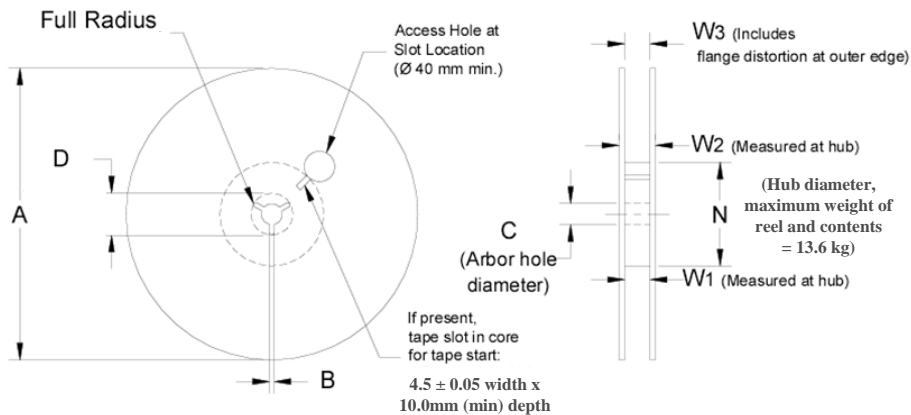
	L	S	W
mm	0.28 ± 0.01	0.19 ± 0.01	0.30 ± 0.01
mils*	11.0 ± 0.4	7.5 ± 0.4	11.8 ± 0.4

* Round off approximation

Packaging

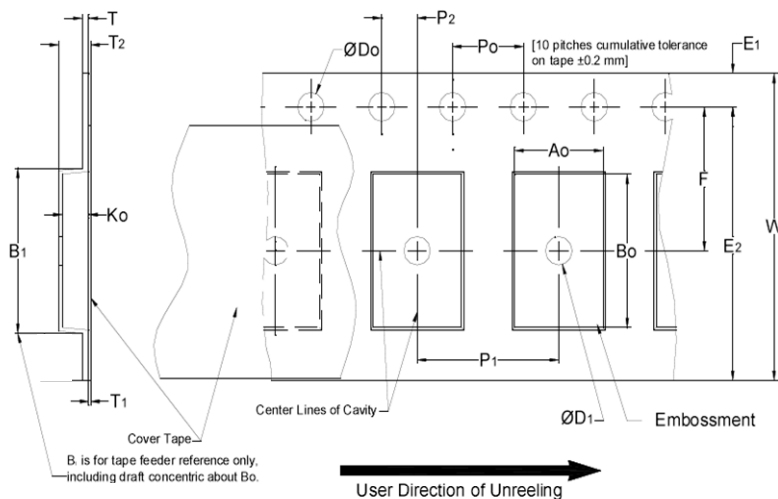
Device Packaging	Tape & Reel Quantity	Standard Box (MOQ)	Standard Box (POQ)
0201 CSP	5,000	15,000 (3 reels)	50,000 (10 reels)

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

ESD Protector
Overvoltage Protection Device***Circuit Protection Products*****PRODUCT: SESD0201C-120-058**DOCUMENT: SCD 27715
REV LETTER: A
REV DATE: SEPTEMBER 11, 2009
PAGE NO.: Page 4 of 4

Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of each product for their applications. Tyco Electronics reserves the right to change or update, without notice, any information contained in this publication; to change, without notice, the design, construction, processing, or specification of any product; and to discontinue or limit production or distribution of any product. This publication supersedes and replaces all information previously supplied. Without expressed or written consent by an officer of Tyco Electronics, Tyco Electronics does not authorize the use of any of its products as components in nuclear facility applications, aerospace, or in critical life support devices or systems. Tyco Electronics' only obligations are those in the Tyco Electronics Standard Terms and Conditions of Sale and in no case will Tyco Electronics be liable for any incidental, indirect, or consequential damages arising from the sale, resale, use, or misuse of its products.

TE (logo) and Tyco Electronics are trademarks of the Tyco Electronics group of companies and its licensors.

© 2009 Tyco Electronics Corporation. All rights reserved.