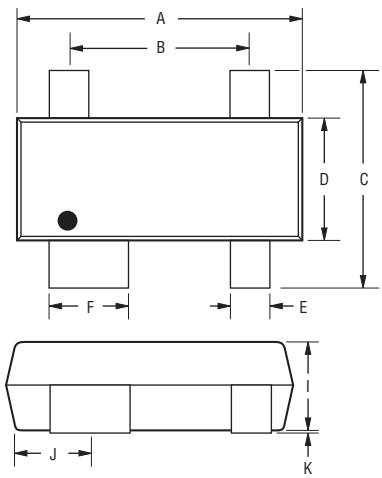
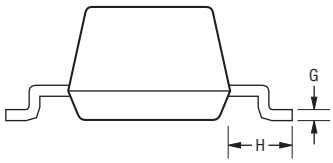
Product Dimensions

This is a molded JEDEC SOT-143 device. It has a flammability rating of UL 94V-0.
The dimensions for the packaged device are shown below.



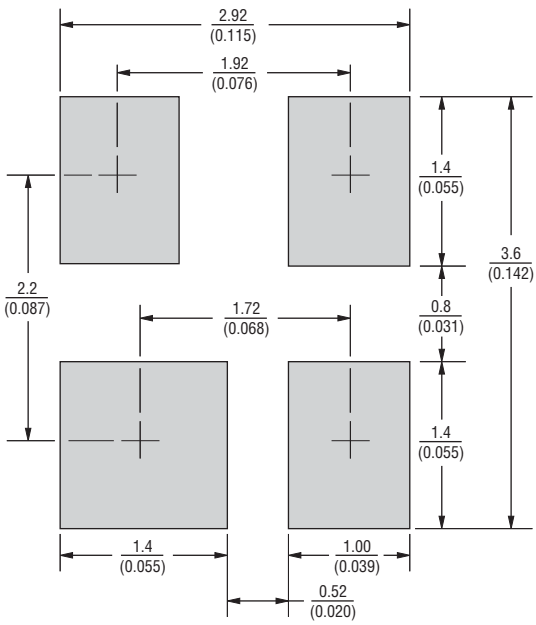


DIMENSIONS: MM / (INCHES)

Dimensions	
A	2.80 - 3.04 (0.110 - 0.12)
B	1.78 - 2.03 (0.070 - 0.080)
C	2.11 - 2.55 (0.083 - 0.100)
D	1.2 - 1.4 (0.047 - 0.055)
E	0.35 - 0.5 (0.014 - 0.020)
F	0.76 - 0.93 (0.030 - 0.037)
G	0.08 - 0.18 (0.003 - 0.007)
H	0.46 - 0.60 (0.018 - 0.024)
I	0.84 - 1.14 (0.033 - 0.045)
J	0.72 - 0.83 (0.028 - 0.033)
K	0.013 - 0.10 (0.0005 - 0.004)

Recommended Pad Layout

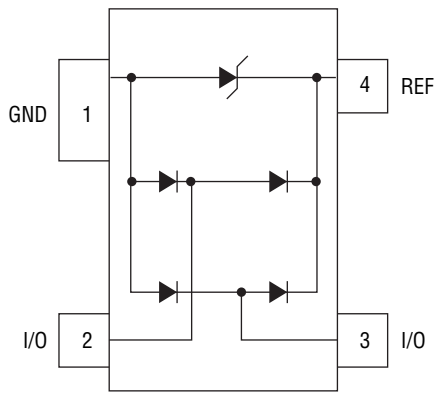
This is the footprint recommended for this SOT-143 device.



DIMENSIONS: MM / (INCHES)

Block Diagram

The device block diagram below includes the pin names and basic electrical connections associated with each channel.



Typical Part Marking

CD143A-SR05LC 5LC

Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.
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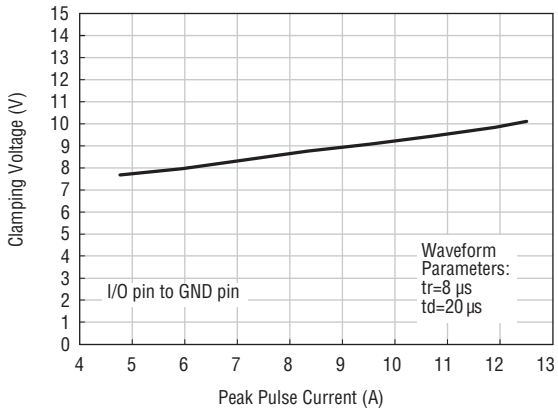
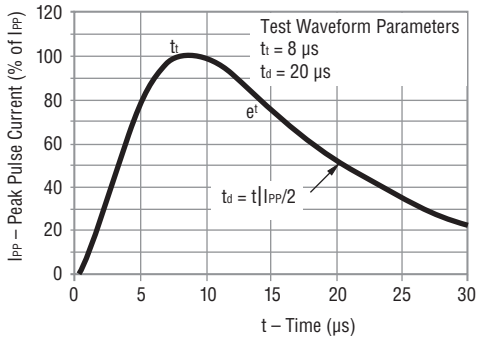
CD143A-SR05LC - Steering/TVS Diode Array Series

Performance Graphs

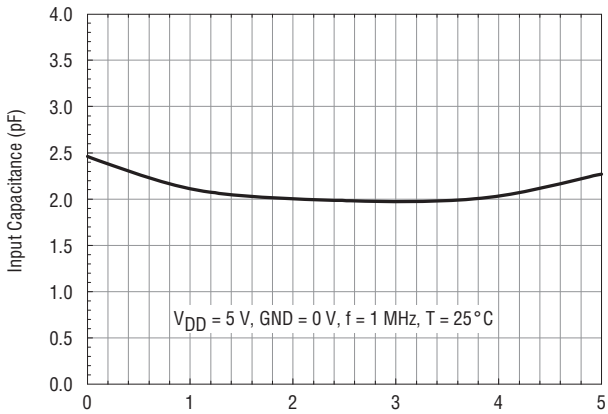
Typical Clamping Voltage vs. Peak Pulse Current



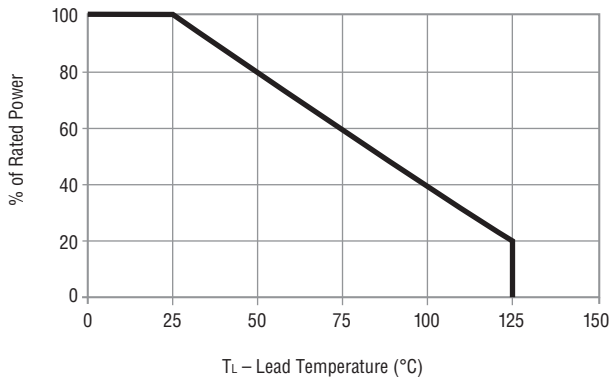
Pulse Wave Form



Typical Capacitance vs. Reverse Voltage



Power Derating Curve



How to Order

CD 143A - SR 05 LC

Common Code
Chip Diode

Package
143A = SOT-143

Model
SR = Steering Diode Array

Workint Peak Voltage
05 = 5.0 V_{WM} (Volts)

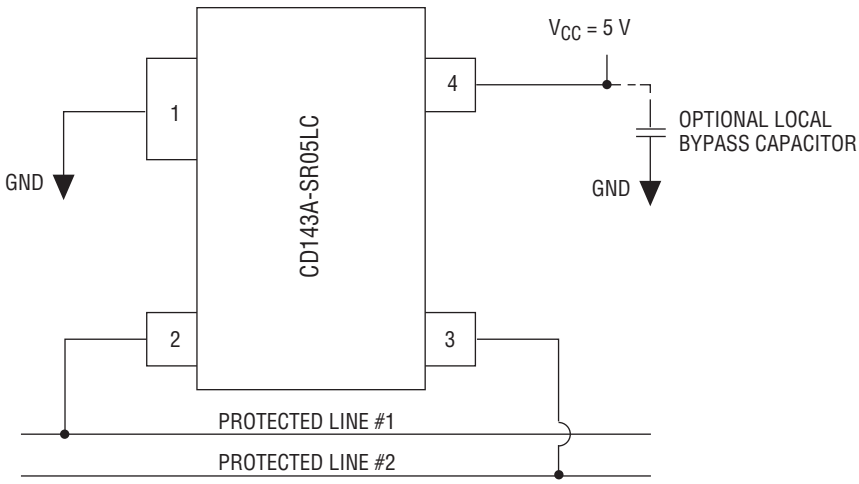
Capacitance
LC = Low Capacitance

Application Information

The Model CD143A-SR05LC is designed to protect two data lines against transient overvoltage events, as well as to limit the transient voltage on the 5 V supply line of the protected device.

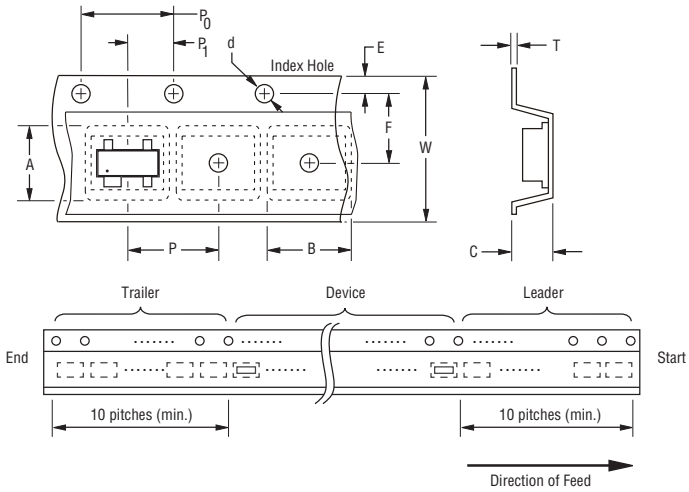
Pin 1 must be connected to the local Ground used by the protected device and Pin 4 must be connected to the 5 V supply rail used by the protected device, as shown in the figure below. Under no circumstances should Pins 1 and 4 be left unconnected (floating).

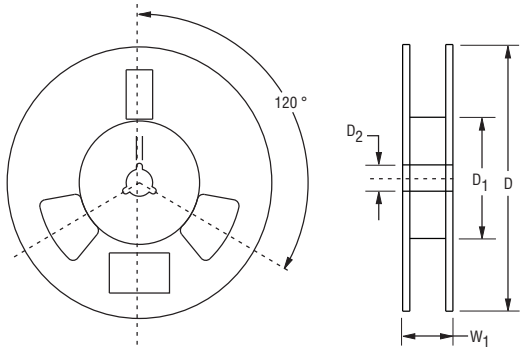
To optimize the performance of the protection design, connections to the CD143A-SR05LC should be as short as possible. This will minimize the parasitic inductance of the printed circuit board traces. An optional 0.1 μF bypass chip capacitor can be added from Pin 4 to Ground to enhance the ESD performance of the design when the nearest bypass capacitor is a significant distance from the Model CD143A-SR05LC.



Packaging Information

The surface mount product is packaged in an 8 mm x 4 mm tape and reel format per EIA-481 standard.





DIMENSIONS: MM / (INCHES)

Item	Symbol	SOT-143
Carrier Width	A	2.80 ± 0.15 (0.110 ± 0.006)
Carrier Length	B	3.25 ± 0.15 (0.128 ± 0.006)
Carrier Depth	C	1.25 ± 0.15 (0.049 ± 0.006)
Sprocket Hole	d	1.50 ± 0.10 (0.059 ± 0.004)
Reel Outside Diameter	D	178 ± 2 (7.008 ± 0.079)
Reel Inner Diameter	D_1	50.0 (1.969) MIN.
Feed Hole Diameter	D_2	13.0 ± 0.20 (0.512 ± 0.008)
Sprocket Hole Position	E	1.75 ± 0.10 (0.069 ± 0.004)
Punch Hole Position	F	3.50 ± 0.10 (0.138 ± 0.004)
Punch Hole Pitch	P	4.00 ± 0.10 (0.157 ± 0.004)
Sprocket Hole Pitch	P_0	4.00 ± 0.20 (0.157 ± 0.008)
Embossment Center	P_1	2.00 ± 0.10 (0.079 ± 0.004)
Overall Tape Thickness	T	0.20 ± 0.10 (0.008 ± 0.004)
Tape Width	W	8.00 ± 0.20 (0.315 ± 0.008)
Reel Width	W_1	14.4 (0.567) MAX.
Quantity per Reel	--	3,000

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