

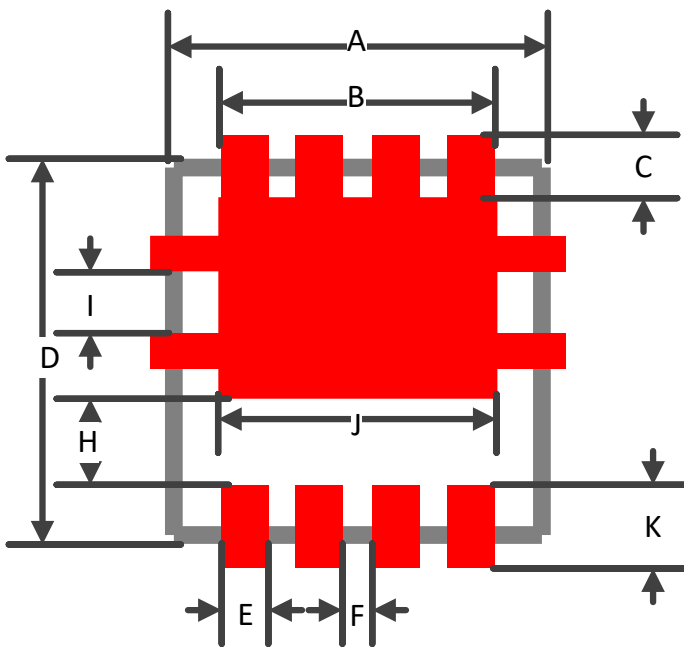
AN1183

LFPAK33/PowerDI3333 Compatible Footprint

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This application note compares the LFPAK33 package to the Diodes Incorporated (Diodes) PowerDI®3333 package. It also provides a new footprint which is compatible with devices of either package while minimizing copper area.

PowerDI3333 Footprint:

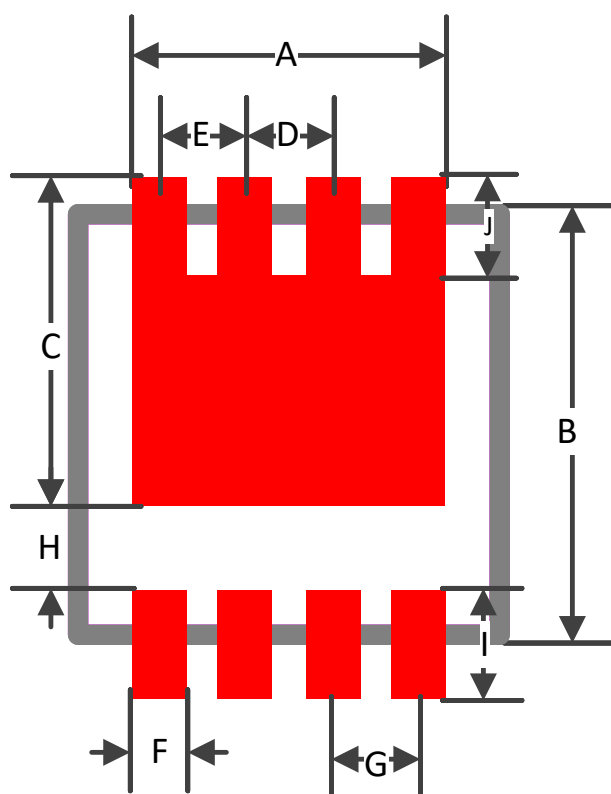


Length	Value (mm)
A	3.3
B	2.375
C	0.54
D	3.3
E	0.42
F	0.23
G	0.3
H	0.75
I	0.55
J	2.27
K	0.70



The 4 pins on the top are connected to a central drain tab. Three of four pins at the bottom are connected to the source and one pin is connected to the gate.

LFPAK33 Footprint

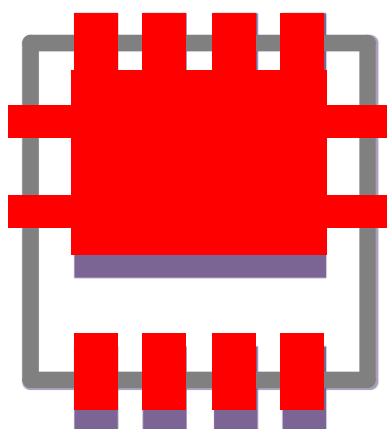


Length	Value (mm)
A	2.350
B	3.300
C	2.470
D	0.617
E	0.635
F	0.400
G	0.650
H	0.600
I	0.830
J	0.750

The LFPAK33 is mostly similar to the PowerDI3333, however it does not have the 4 pins coming out from the drain tab.

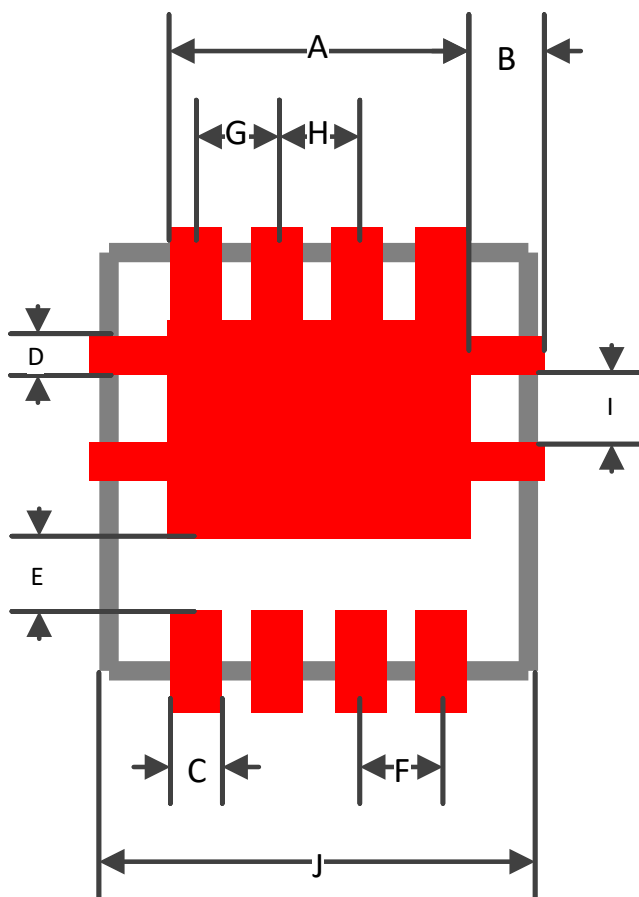
Overlaid Footprint:

Below are the overlaid footprints of both the LFPAK33 and PowerDI3333. From this we can see that a compatible footprint can be obtained from simply combining these two footprints, as shown below:



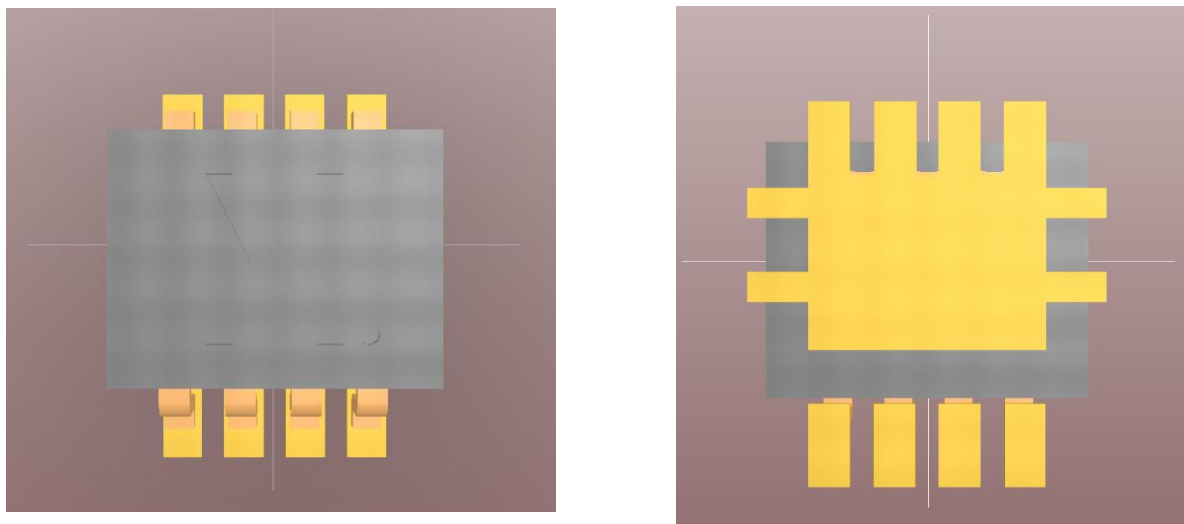
Compatible Footprint

By merging and expanding the copper sections of the footprint where necessary, a footprint that works for both packages can be created, as shown below.

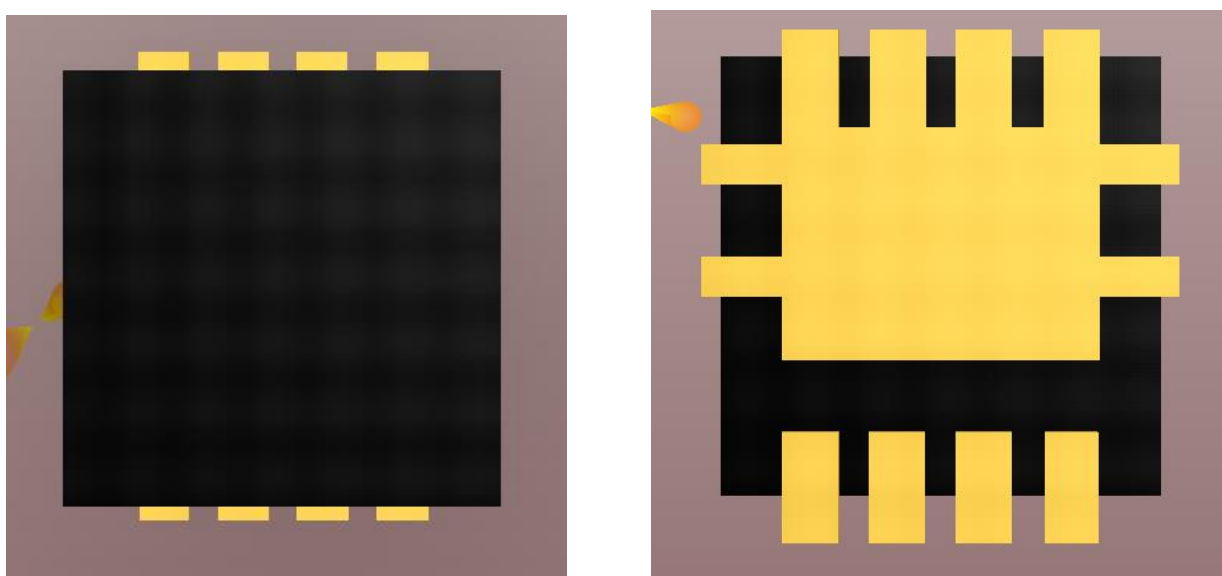


Length	Value (mm)
A	2.375
B	0.600
C	0.420
D	0.300
E	0.550
F	0.650
G	0.675
H	0.650
I	0.550
J	3.330

As shown below, the new footprint is compatible with the LFPAK33:



The new footprint is, by design, also compatible with PowerDI3333 as shown below:



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