ECE 310 MICROELECTRONICS I

ZENER DIODE EXAMPLE

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ZENER DIODE EXAMPLE





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ZENER DIODE

- Select "zener" from analogLib
- Use the model name "Zener1"

	Add Instance X				
Library	analogLib Browse				
Cell	zener				
View	symbol				
Names					
Add Wire Stubs at:					
Array	Rows 1 Columns 1				
🚯 Rotate 🛛 🕼 Sideways 🚭 Upside Down					
Model nan	me Zener1				
Device are	ea	l			
Junction p	perimeter factor	l			
Length		l			
Width		ł			
Multiplier		l			
Scale fact	or	l			
Temp rise	from ambient	l			
Length of	matal canaditor Hide Cancel Defaults Help				

ADDING THE MODEL

- In order to add the "Zener1" model,
- go to setup and then Model Libraries in
- the ADE window.





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ADDING THE MODEL (CONTINUED)

• In the model library setup, select the option to add model file

spectre0: Model Library Setup		×
Model File	Section cmostm restm captm biptm indtm esddiodetm	 <
	OK Cancel Apply	Help

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ADDING THE MODEL (CONTINUED)

- Starting from "Computer", follow the
- path:
- /home/alve8438/ece310_examples
- and include the file "ece310.lib".

		Cho	ose Model File						×
Look in:	📕 Computer			G	9	1) ک		
Computer alve8438 ece310_6									-
File <u>n</u> ame:				_	_			pen	
Files of type: (c							ancel	



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ECE310.LIB

• The ece310.lib currently has the models for the "D1N4002" diode and "Zener1" diode. As we start using more custom components, more models will be added to this library.



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RESULTS

• The output of the circuit will look like this:





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