Regulador de Tensão Zener

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Version 1.0
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Table of Contents

Table of contents

Hierarchical Index

Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

Class Index

Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

File Index

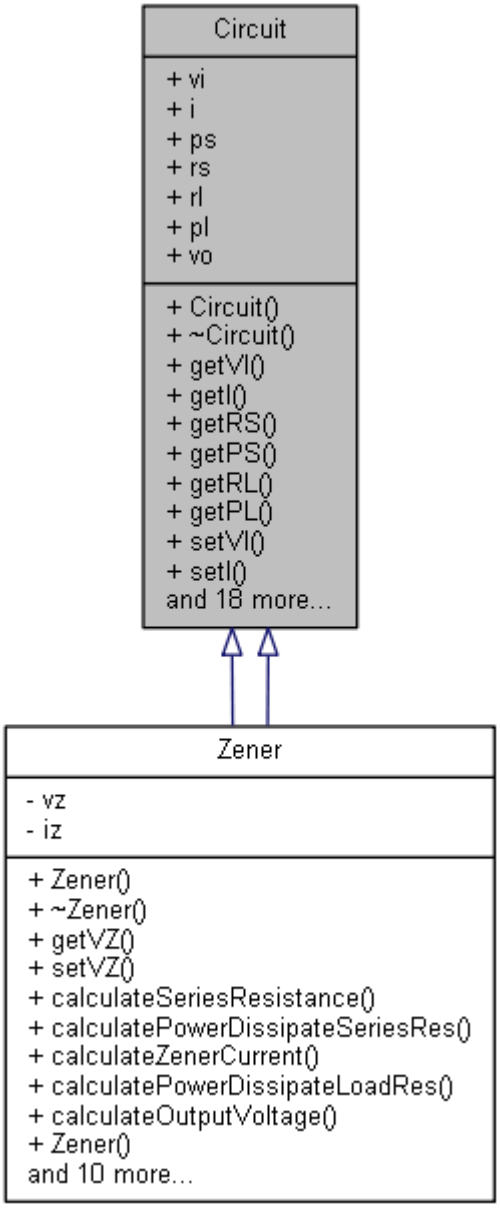
File List

Here is a list of all files with brief descriptions:

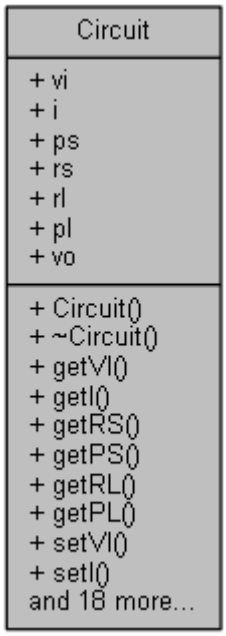
Class Documentation

Circuit Class Reference

Inheritance diagram for Circuit:



Collaboration diagram for Circuit:



Public Member Functions

- **Circuit** (float _vi, float _i)
- **~Circuit** ()
- float **getVI** () const
- float **getI** () const
- float **getRS** () const
- float **getPS** () const
- float **getRL** () const
- float **getPL** () const
- void **setVI** (const float &**vi**)
- void **setI** (const float &**i**)
- void **setRS** (const float &**rs**)
- void **setPS** (const float &**rs**)
- void **setRL** (const float &**rl**)
- void **setPL** (const float &**pl**)
- **Circuit** (float _vi, float _i, float _ps, float _rs, float _rl, float _pl, float _vo)
- **~Circuit** ()
- float **getVI** () const
- float **getI** () const
- float **getRS** () const
- float **getPS** () const
- float **getRL** () const
- float **getPL** () const
- void **setVI** (const float &**vi**)
- void **setI** (const float &**i**)
- void **setRS** (const float &**rs**)
- void **setPS** (const float &**rs**)
- void **setRL** (const float &**rl**)
- void **setPL** (const float &**pl**)

Public Attributes

- float **vi**
- float **i**
- float **ps**

- float **rs**
- float **rl**
- float **pl**
- float **vo**

Detailed Description

Definition at line 5 of file Regulador_tensao_zener.c.

Constructor & Destructor Documentation

Circuit::Circuit (float _*vi*, float _*i*) `[inline]`

Definition at line 11 of file Regulador_tensao_zener.c.

Circuit::~Circuit () `[inline]`

Definition at line 13 of file Regulador_tensao_zener.c.

Circuit::Circuit (float _*vi*, float _*i*, float _*ps*, float _*rs*, float _*rl*, float _*pl*, float _*vo*) `[inline]`

Definition at line 11 of file Regulador_tensao_zener.cpp.

Circuit::~Circuit () `[inline]`

Definition at line 13 of file Regulador_tensao_zener.cpp.

Member Function Documentation

float Circuit::getI () const `[inline]`

Definition at line 16 of file Regulador_tensao_zener.c.

float Circuit::getI () const `[inline]`

Definition at line 16 of file Regulador_tensao_zener.cpp.

float Circuit::getPL () const `[inline]`

Definition at line 20 of file Regulador_tensao_zener.cpp.

float Circuit::getPL () const `[inline]`

Definition at line 20 of file Regulador_tensao_zener.c.

float Circuit::getPS () const `[inline]`

Definition at line 18 of file Regulador_tensao_zener.c.

float Circuit::getPS () const `[inline]`

Definition at line 18 of file Regulador_tensao_zener.cpp.

float Circuit::getRL () const `[inline]`

Definition at line 19 of file Regulador_tensao_zener.cpp.

float Circuit::getRL () const `[inline]`

Definition at line 19 of file Regulador_tensao_zener.c.

float Circuit::getRS () const `[inline]`

Definition at line 17 of file Regulador_tensao_zener.c.

float Circuit::getRS () const `[inline]`

Definition at line 17 of file Regulador_tensao_zener.cpp.

float Circuit::getVI () const `[inline]`

Definition at line 15 of file Regulador_tensao_zener.c.

float Circuit::getVI () const `[inline]`

Definition at line 15 of file Regulador_tensao_zener.cpp.

void Circuit::setI (const float & ***i*****)** `[inline]`

Definition at line 23 of file Regulador_tensao_zener.c.

void Circuit::setI (const float & ***i*****)** `[inline]`

Definition at line 23 of file Regulador_tensao_zener.cpp.

void Circuit::setPL (const float & ***pl*****)** `[inline]`

Definition at line 27 of file Regulador_tensao_zener.c.

void Circuit::setPL (const float & ***pl*****)** `[inline]`

Definition at line 27 of file Regulador_tensao_zener.cpp.

void Circuit::setPS (const float & *rs*) [inline]

Definition at line 25 of file Regulador_tensao_zener.c.

void Circuit::setPS (const float & *rs*) [inline]

Definition at line 25 of file Regulador_tensao_zener.cpp.

void Circuit::setRL (const float & *rl*) [inline]

Definition at line 26 of file Regulador_tensao_zener.cpp.

void Circuit::setRL (const float & *rl*) [inline]

Definition at line 26 of file Regulador_tensao_zener.c.

void Circuit::setRS (const float & *rs*) [inline]

Definition at line 24 of file Regulador_tensao_zener.c.

void Circuit::setRS (const float & *rs*) [inline]

Definition at line 24 of file Regulador_tensao_zener.cpp.

void Circuit::setVI (const float & *vi*) [inline]

Definition at line 22 of file Regulador_tensao_zener.cpp.

void Circuit::setVI (const float & *vi*) [inline]

Definition at line 22 of file Regulador_tensao_zener.c.

Member Data Documentation

float Circuit::i

Definition at line 8 of file Regulador_tensao_zener.c.

float Circuit::pl

Definition at line 9 of file Regulador_tensao_zener.c.

float Circuit::ps

Definition at line 9 of file Regulador_tensao_zener.c.

float Circuit::rl

Definition at line 9 of file Regulador_tensao_zener.c.

float Circuit::rs

Definition at line 9 of file Regulador_tensao_zener.c.

float Circuit::vi

Definition at line 8 of file Regulador_tensao_zener.c.

float Circuit::vo

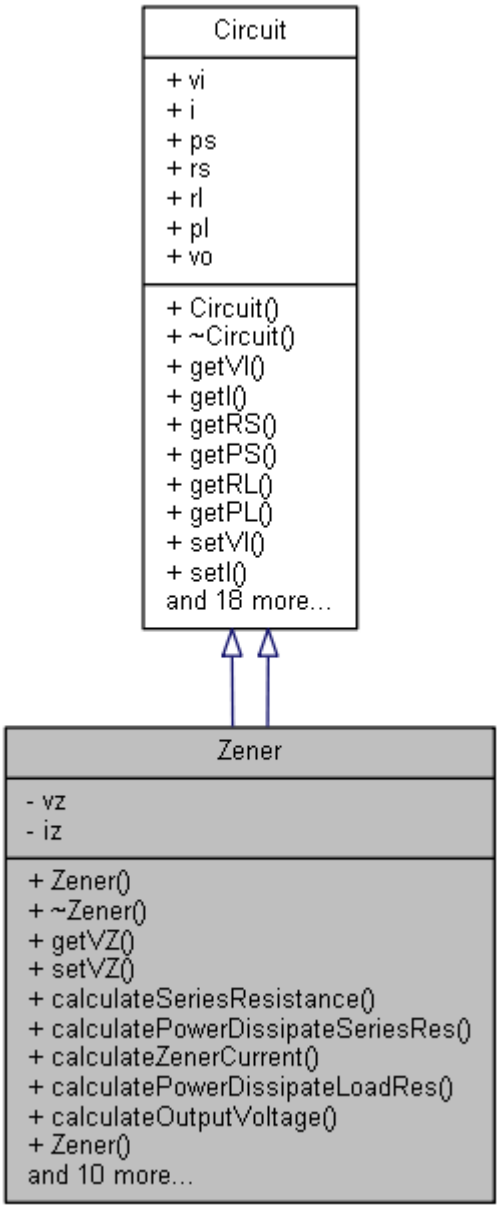
Definition at line 9 of file Regulador_tensao_zener.c.

The documentation for this class was generated from the following files:

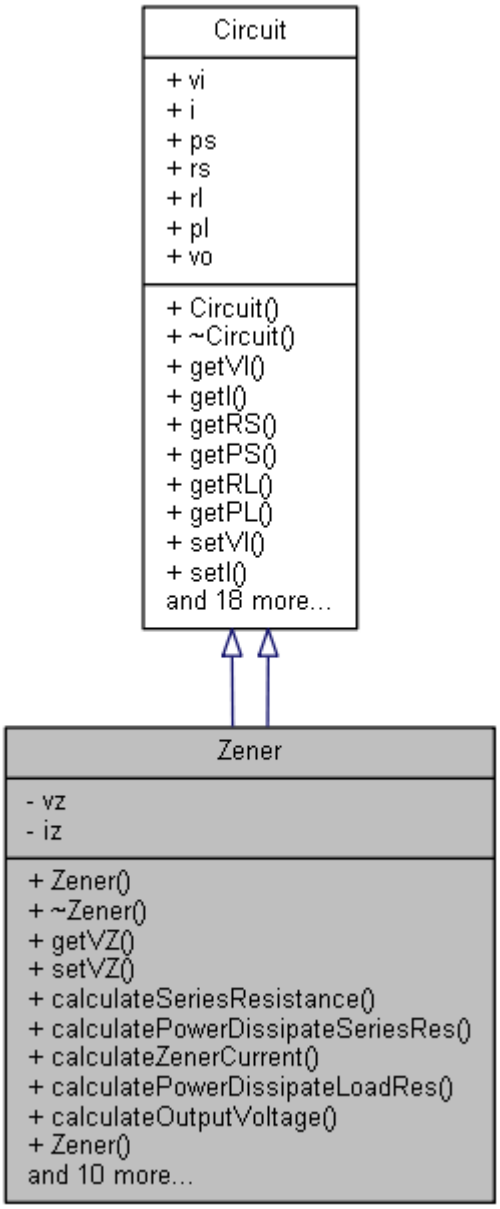
- **Regulador_tensao_zener.c**
- **Regulador_tensao_zener.cpp**

Zener Class Reference

Inheritance diagram for Zener:



Collaboration diagram for Zener:



Public Member Functions

- **Zener** (float _vz, float _vi, float _i)
- **~Zener** ()
- float **getVZ** () const
- void **setVZ** (const float &**vz**)
- float **calculateSeriesResistance** ()
- float **calculatePowerDissipateSeriesRes** ()
- float **calculateZenerCurrent** ()
- float **calculatePowerDissipateLoadRes** ()
- float **calculateOutputVoltage** ()
- **Zener** (float _vz, float _iz, float _vi, float _i, float _ps, float _rs, float _rl, float _pl, float _vo)
- **~Zener** ()
- float **getVZ** () const
- float **getIZ** () const
- void **setVZ** (const float &**vz**)
- void **setIZ** (const float &**iz**)
- float **calculateSeriesResistance** ()

- float **calculatePowerDissipateSeriesRes** ()
- float **calculateZenerCurrent** ()
- float **calculatePowerDissipateLoadRes** ()
- float **calculateOutputVoltage** ()

Private Attributes

- float **vz**
- float **iz**

Additional Inherited Members

Detailed Description

Definition at line 30 of file Regulador_tensao_zener.c.

Constructor & Destructor Documentation

Zener::Zener (float *_vz*, float *_vi*, float *_i*) `[inline]`

Definition at line 34 of file Regulador_tensao_zener.c.

Zener::~Zener () `[inline]`

Definition at line 36 of file Regulador_tensao_zener.c.

Zener::Zener (float *_vz*, float *_iz*, float *_vi*, float *_i*, float *_ps*, float *_rs*, float *_rl*, float *_pl*, float *_vo*) `[inline]`

Definition at line 34 of file Regulador_tensao_zener.cpp.

Zener::~Zener () `[inline]`

Definition at line 36 of file Regulador_tensao_zener.cpp.

Member Function Documentation

float Zener::calculateOutputVoltage () `[inline]`

Definition at line 54 of file Regulador_tensao_zener.c.

Here is the caller graph for this function:

float Zener::calculateOutputVoltage () `[inline]`

Definition at line 56 of file Regulador_tensao_zener.cpp.

float Zener::calculatePowerDissipateLoadRes () `[inline]`

Definition at line 51 of file Regulador_tensao_zener.c.

Here is the caller graph for this function:

float Zener::calculatePowerDissipateLoadRes () `[inline]`

Definition at line 53 of file Regulador_tensao_zener.cpp.

float Zener::calculatePowerDissipateSeriesRes () `[inline]`

Definition at line 45 of file Regulador_tensao_zener.c.

Here is the caller graph for this function:

float Zener::calculatePowerDissipateSeriesRes () `[inline]`

Definition at line 47 of file Regulador_tensao_zener.cpp.

float Zener::calculateSeriesResistance () `[inline]`

Definition at line 42 of file Regulador_tensao_zener.c.

Here is the caller graph for this function:

float Zener::calculateSeriesResistance () `[inline]`

Definition at line 44 of file Regulador_tensao_zener.cpp.

float Zener::calculateZenerCurrent () `[inline]`

Definition at line 48 of file Regulador_tensao_zener.c.

Here is the caller graph for this function:

float Zener::calculateZenerCurrent () `[inline]`

Definition at line 50 of file Regulador_tensao_zener.cpp.

float Zener::getIZ () const `[inline]`

Definition at line 39 of file Regulador_tensao_zener.cpp.

float Zener::getVZ () const `[inline]`

Definition at line 38 of file Regulador_tensao_zener.cpp.

float Zener::getVZ () const `[inline]`

Definition at line 38 of file Regulador_tensao_zener.c.

void Zener::setIZ (const float & *iz*) `[inline]`

Definition at line 42 of file Regulador_tensao_zener.cpp.

void Zener::setVZ (const float & *vz*) `[inline]`

Definition at line 40 of file Regulador_tensao_zener.c.

void Zener::setVZ (const float & *vz*) `[inline]`

Definition at line 41 of file Regulador_tensao_zener.cpp.

Member Data Documentation

float Zener::iz `[private]`

Definition at line 31 of file Regulador_tensao_zener.c.

float Zener::vz `[private]`

Definition at line 31 of file Regulador_tensao_zener.c.

The documentation for this class was generated from the following files:

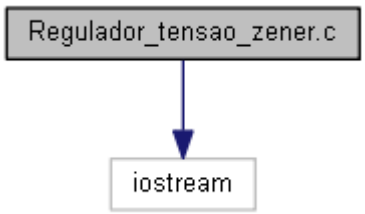
- **Regulador_tensao_zener.c**
- **Regulador_tensao_zener.cpp**

File Documentation

Regulador_tensao_zener.c File Reference

```
#include <iostream>
```

Include dependency graph for Regulador_tensao_zener.c:



Classes

- class **Circuit**
- class **Zener**

Functions

- int **main** ()

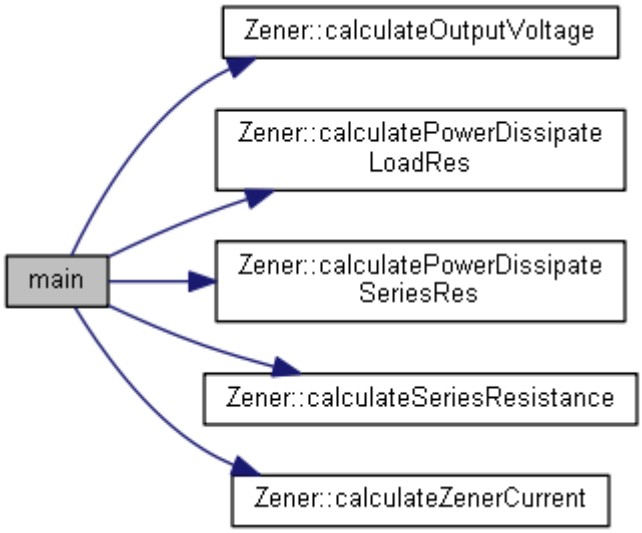
Function Documentation

int main ()

Definition at line 59 of file Regulador_tensao_zener.c.

References Zener::calculateOutputVoltage(), Zener::calculatePowerDissipateLoadRes(), Zener::calculatePowerDissipateSeriesRes(), Zener::calculateSeriesResistance(), and Zener::calculateZenerCurrent().

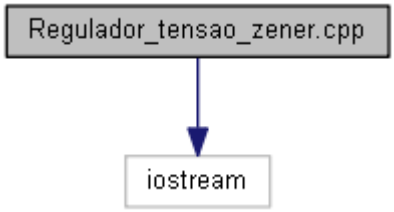
Here is the call graph for this function:



Regulador_tensao_zener.cpp File Reference

```
#include <iostream>
```

Include dependency graph for Regulador_tensao_zener.cpp:



Classes

- class **Circuit**
- class **Zener**

Functions

- int **main** ()

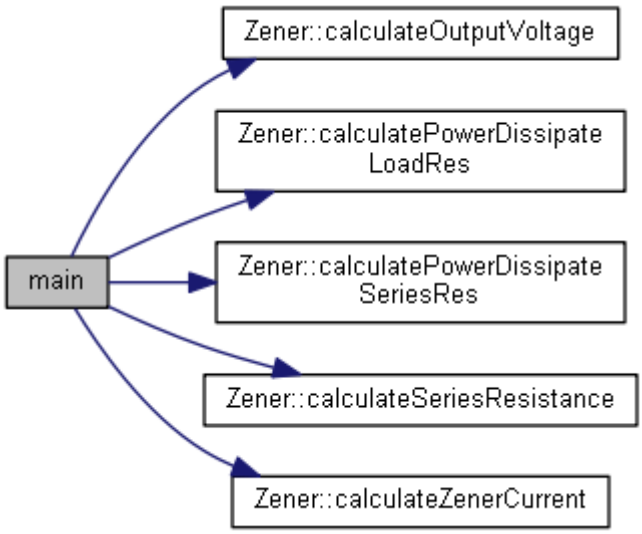
Function Documentation

int main ()

Definition at line 61 of file Regulador_tensao_zener.cpp.

References Zener::calculateOutputVoltage(), Zener::calculatePowerDissipateLoadRes(), Zener::calculatePowerDissipateSeriesRes(), Zener::calculateSeriesResistance(), and Zener::calculateZenerCurrent().

Here is the call graph for this function:



Index

INDEX