

## 1.0A Low Dropout Linear Regulator

The AZ1117E series is a low dropout positive voltage regulator, with a typical dropout of 1.1V at 1A of load current.

The device features on-chip thermal shutdown. It also includes a bandgap reference and a current limiting circuit.

The AZ1117E is available in an adjustable version and six fixed output versions of 1.2, 1.5, 1.8, 2.5, 3.3 and 5V.

The adjustable version can set the output voltage with two external resistors.

The AZ1117E series is available in the industry standard packages SOT223



### The Diodes Advantage

**The AZ1117E is a Bipolar LDO with 1A output current capacity, which offers a wide input range and is suitable for a multiple of power systems**

▪ **Wide Input Range**

AZ1117E Bipolar process offers a wide input voltage range

▪ **Low Dropout Voltage: Typical 1.1V at 1A**

Can meet low dropout applications

▪ **Adjust Pin Current: 45  $\mu$ A (Typ)**

Power saving

▪ **Available in a Adjustable Version**

The adjustable version can set output voltage flexibly with two external resistors

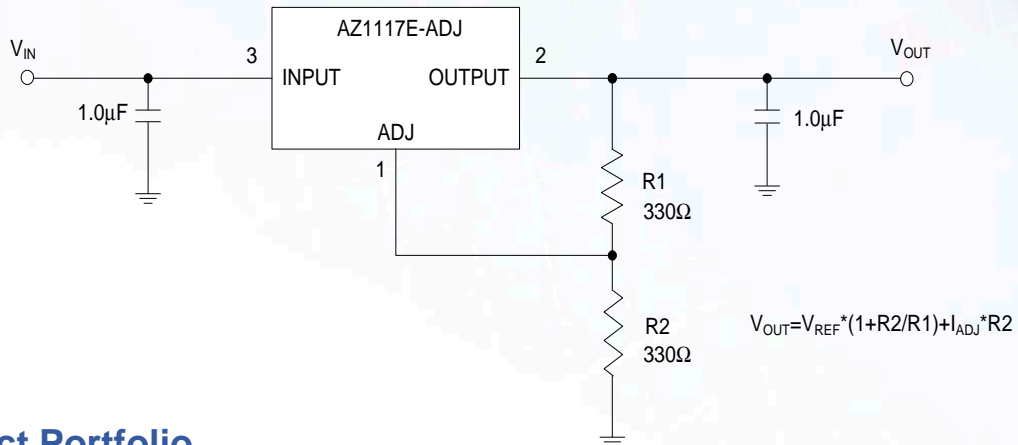
▪ **Current Limiting and Thermal Protection**

Provides protection against any condition of excessive junction temperature

▪ **Compatible with low ESR Ceramic Capacitor**

Maximum design flexibility

### Typical Application Schematic:



### Product Portfolio

| Part Number | V <sub>IN</sub> (V) | V <sub>OUT</sub> (V)                 | I <sub>OUT</sub> (A) | V <sub>DROPOUT</sub> @ full load(V) | I <sub>ADJ</sub> (mA) | Package |
|-------------|---------------------|--------------------------------------|----------------------|-------------------------------------|-----------------------|---------|
| AZ1117E     | up to 13            | ADJ(1.25)<br>1.2/1.5/1.8/2.5/3.3/5.0 | 1                    | 1.1                                 | 3.5                   | SOT223  |

### Ordering Information

| Device           | Packaging | Marking ID | Reel Size | Quantity |
|------------------|-----------|------------|-----------|----------|
| AZ1117EH-ADJTRG1 | SOT223    | GH23H      | 13"       | 4000     |
| AZ1117EH-1.2TRG1 | SOT223    | GH23F      | 13"       | 4000     |
| AZ1117EH-1.5TRG1 | SOT223    | GH27F      | 13"       | 4000     |
| AZ1117E-1.8TRG1  | SOT223    | GH18G      | 13"       | 4000     |
| AZ1117EH-2.5TRG1 | SOT223    | GH23G      | 13"       | 4000     |
| AZ1117EH-3.3TRG1 | SOT223    | GH27G      | 13"       | 4000     |
| AZ1117EH-5.0TRG1 | SOT223    | GH18H      | 13"       | 4000     |

All variants are in packages that are "Green" Molding Compound (No Br, Sb) with Lead Free Finish/RoHS Compliant (Note 1)  
 Notes: 1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Notes  
 2 Codes for date coding on part marks  
 Y Year 0-9      YY Year 08, 09 etc      W A-Z week 1-26 a-z week 27-53      WW Week 01-52      X A-Z: Green