

## 60V (D-S) Small Signal MOSFET

**UM2362S SOT23-3**

**UM2362P SOT323**

### General Description

The UM2362 is a low threshold N-channel MOSFET, which has low on-resistance, high reliability and stability, as well as fast switch capability and high saturation current. This benefit provides the designer with an extremely efficient device for use in battery and load management applications. The devices use a space-saving, small-outline SOT23-3 or SOT323 package.

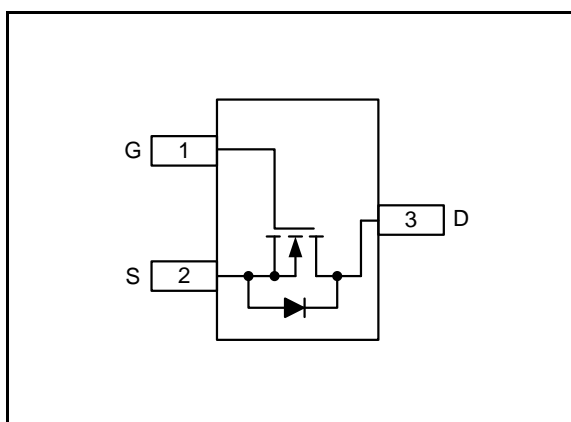
### Applications

- Battery Packs
- Battery-Powered Portable Equipment
- Cellular and Cordless Telephones

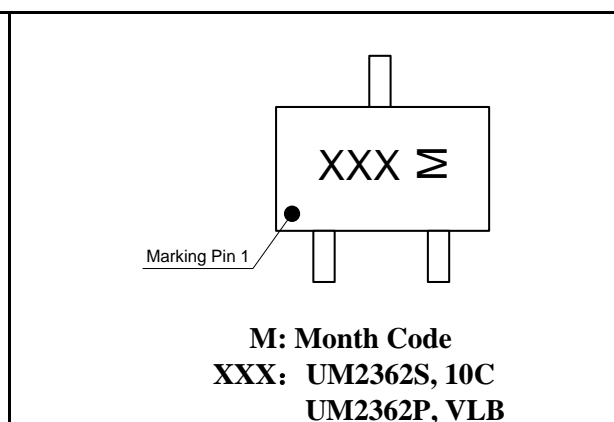
### Features

- Drain-Source Voltage (Max): 60V
- Low On-Resistance (Typ):  
1.2Ω@V<sub>GS</sub>=10V  
1.7Ω@V<sub>GS</sub>=5V
- Continuous Drain Current (Max):  
115mA@25°C

### Pin Configurations



### Top View



### Ordering Information

Part Number	Packaging Type	Marking Code	Shipping Qty
UM2362S	SOT23-3	10C	3000pcs/7 Inch Tape & Reel
UM2362P	SOT323	VLB	3000pcs/7 Inch Tape & Reel

**Absolute Maximum Ratings (T<sub>amb</sub>=25°C)**

Symbol	Parameter	Value	Unit
V <sub>DSS</sub>	Drain-Source Voltage	60	V
V <sub>GS</sub>	Gate-Source Voltage	±20	V
I <sub>D</sub>	Continuous Drain Current	115	mA
P <sub>D</sub>	Power Dissipation	200	mW
T <sub>J</sub>	Junction Temperature	+150	°C
T <sub>stg</sub>	Storage Temperature	-55 to +150	°C

**Electrical Characteristics (T<sub>amb</sub>=25°C, unless otherwise noted)**

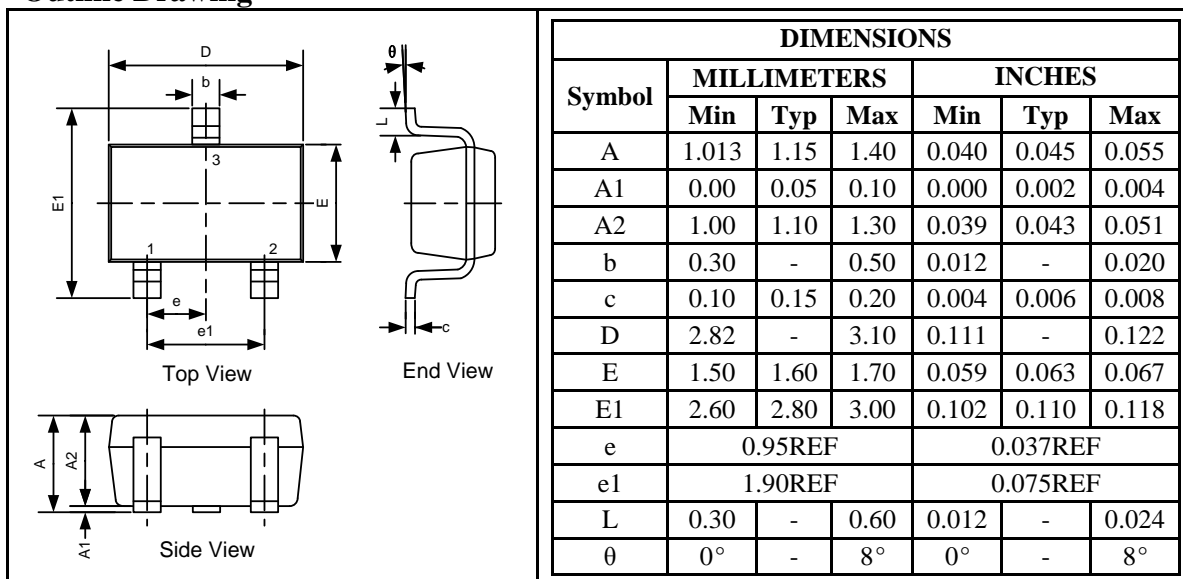
Symbol	Parameter	Test Condition	Min	Typ	Max	Unit
<b>Off Characteristics</b>						
BV <sub>DSS</sub>	Drain to Source Breakdown Voltage	V <sub>GS</sub> =0V, I <sub>D</sub> =10μA	60			V
		V <sub>GS</sub> =0V, I <sub>D</sub> =3mA	60			
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> =60V, V <sub>GS</sub> =0V			1	μA
I <sub>GSS</sub>	Gate-to-Source Leakage Current	V <sub>GS</sub> =±20V, V <sub>DS</sub> =0V			±100	nA
<b>On Characteristics</b>						
R <sub>DS(ON)</sub> *	Static Drain-to-Source On-Resistance	V <sub>GS</sub> =10V, I <sub>D</sub> =500mA		1.2	7.5	Ω
		V <sub>GS</sub> =5V, I <sub>D</sub> =50mA		1.7	7.5	
V <sub>GS(TH)</sub> *	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> , I <sub>D</sub> =250μA	1		2.5	V
I <sub>D(ON)</sub> *	Drain-to-Source On Current	V <sub>GS</sub> =10V, V <sub>DS</sub> =7V	500			mA
V <sub>DS(ON)</sub> *	Drain-to-Source On Voltage	V <sub>GS</sub> =10V, I <sub>D</sub> =500mA			3.75	V
		V <sub>GS</sub> =5V, I <sub>D</sub> =50mA			0.375	
g <sub>fs</sub> *	Forward Transconductance	V <sub>DS</sub> =10V, I <sub>D</sub> =200mA	80			mS
<b>Drain-Source Diode Characteristics and Maximum Ratings</b>						
V <sub>SD</sub>	Forward Diode Voltage	V <sub>GS</sub> =0V, I <sub>S</sub> =115mA			1.2	V

\*Pulse test: Pulse Width≤300μs, Duty Cycle≤2%

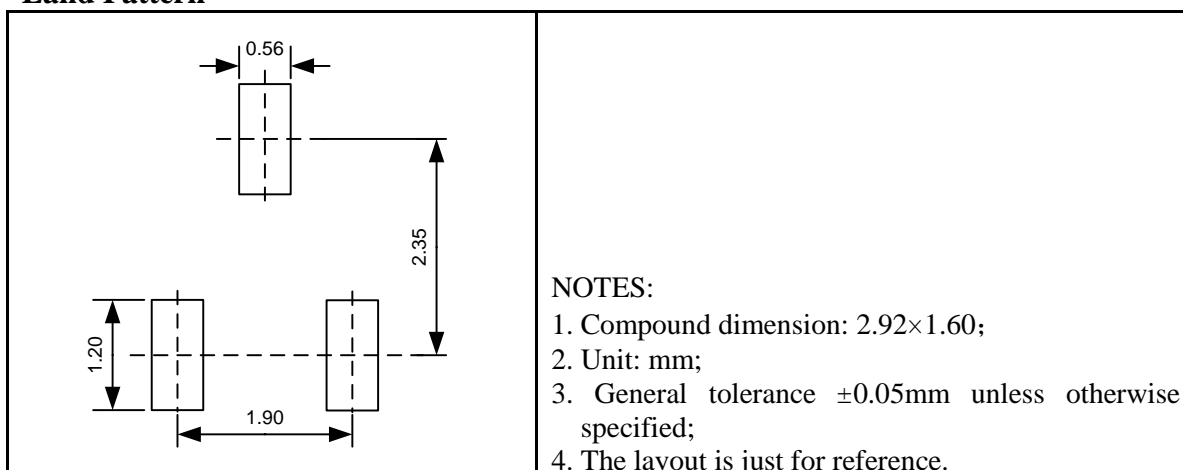
## Package Information

### UM2362S SOT23-3

#### Outline Drawing



#### Land Pattern

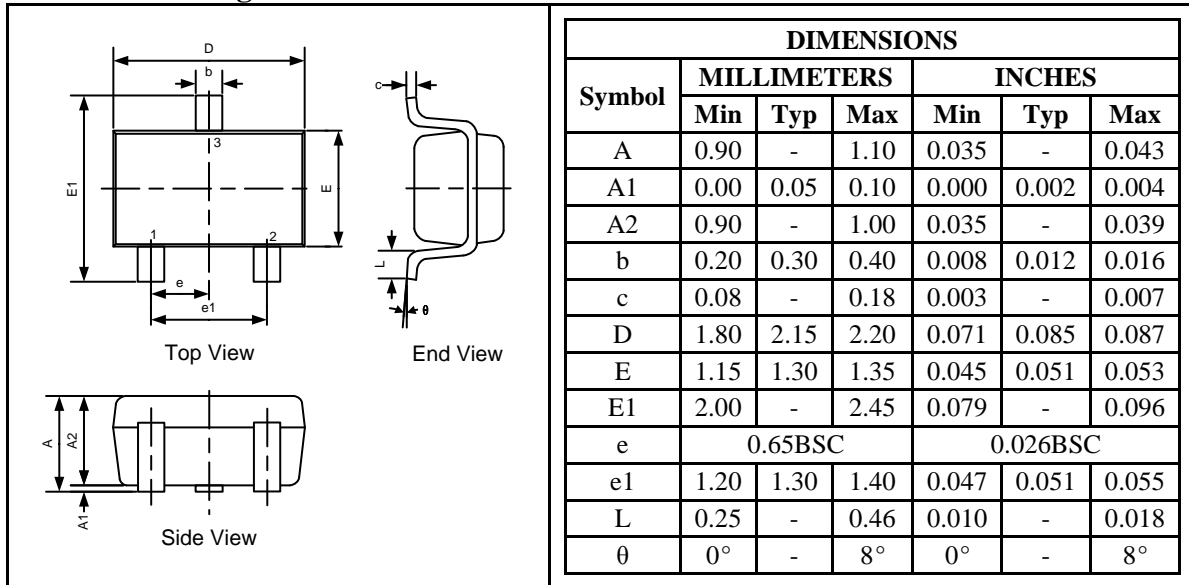


#### Tape and Reel Orientation

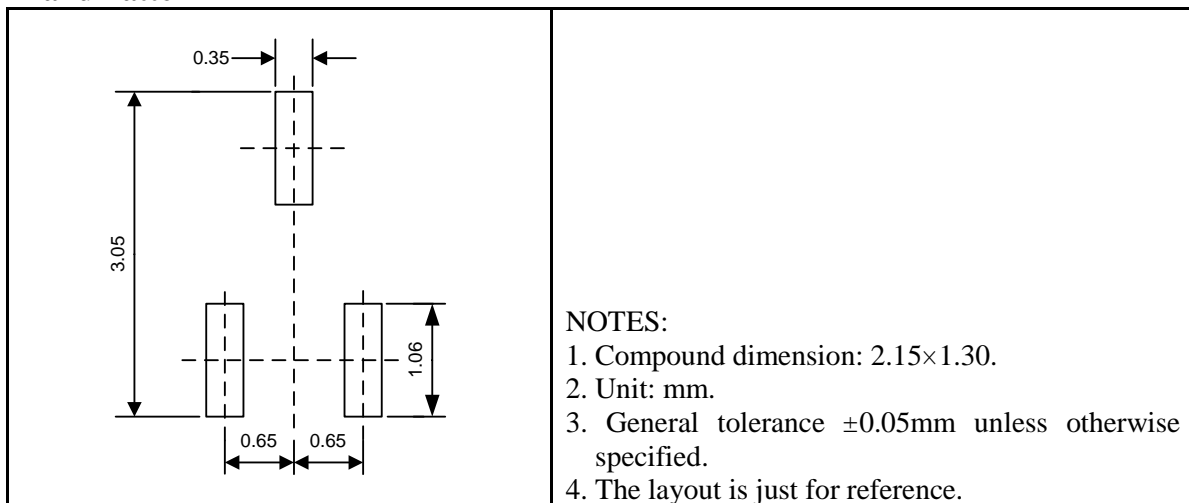


## UM2362P SOT323

### Outline Drawing



### Land Pattern



### Tape and Reel Orientation



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