

20V P沟道功率MOSFET

UM8515 SOT23-6

描述

UM8515 是一款低阈值 P 沟道 MOSFET，具有极低的导通电阻。这一优势为设计师提供了适用于电池和负载管理应用的极高效器件。该器件采用节省空间、外形小巧的 SOT23-6 封装。

应用

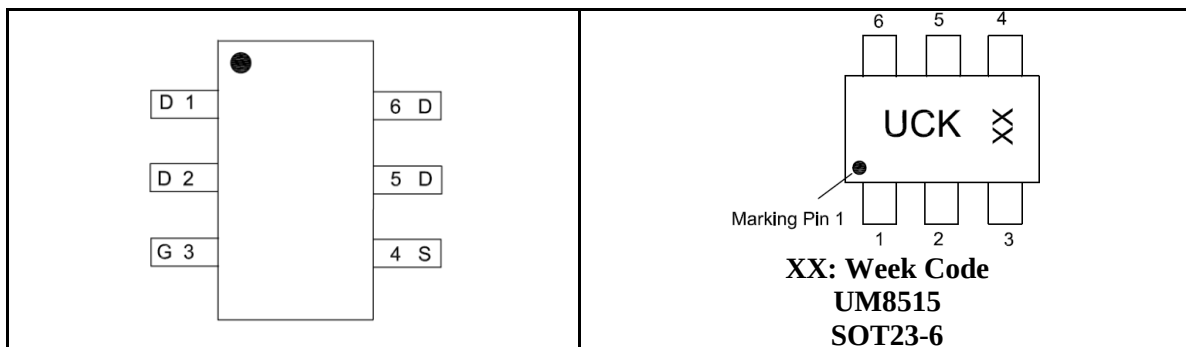
- 电池组
- 电池供电的便携式设备
- 手机和无线电话

特性

- 漏源电压（最大）：-20V
- 低导通电阻：
90mΩ@ $V_{GS}=-4.5V$
110mΩ@ $V_{GS}=-2.5V$
- 持续漏极电流（最大）：-2A@25℃

引脚配置

顶部视图



订购信息

芯片型号	封装类型	丝印编码	发货数量
UM8515	SOT23-6	UCK	3000 片/7 英寸卷带

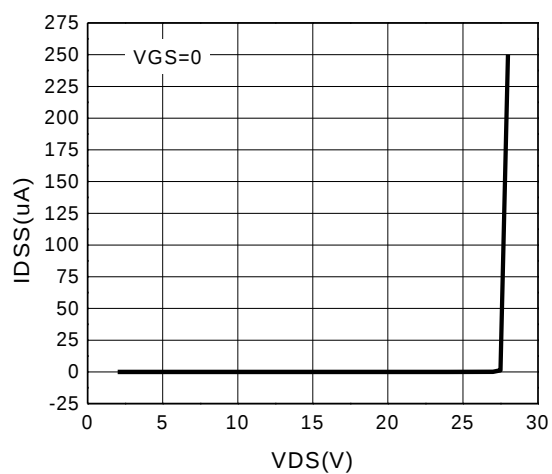
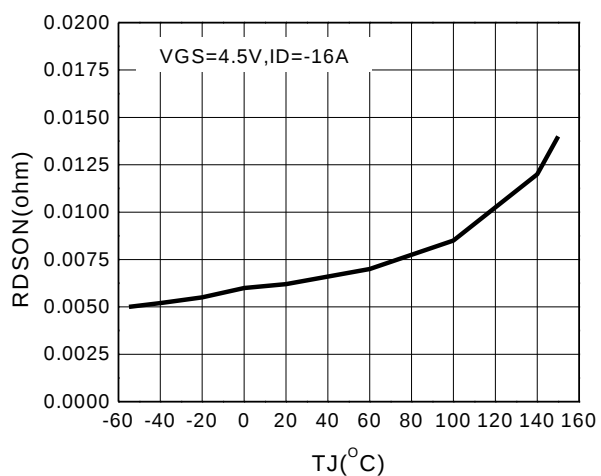
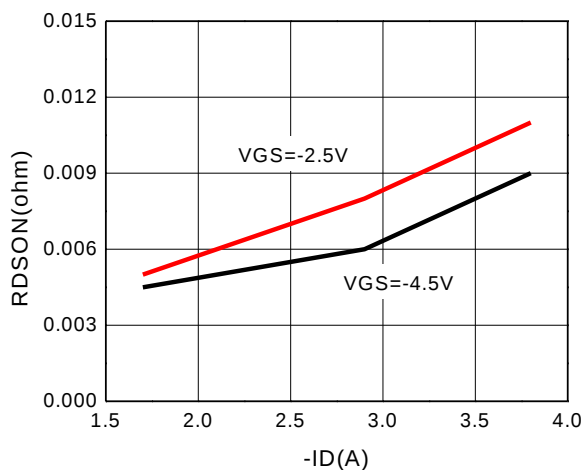
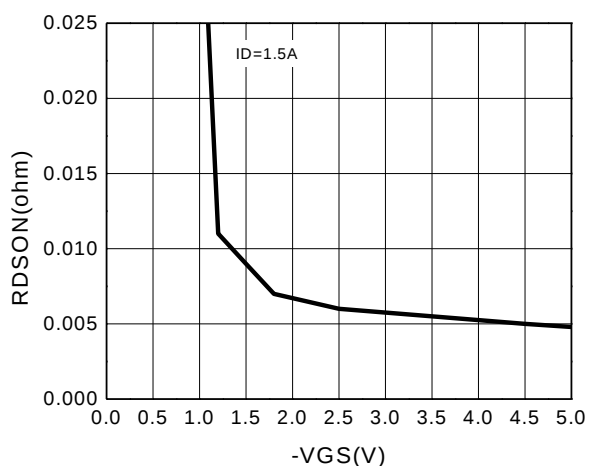
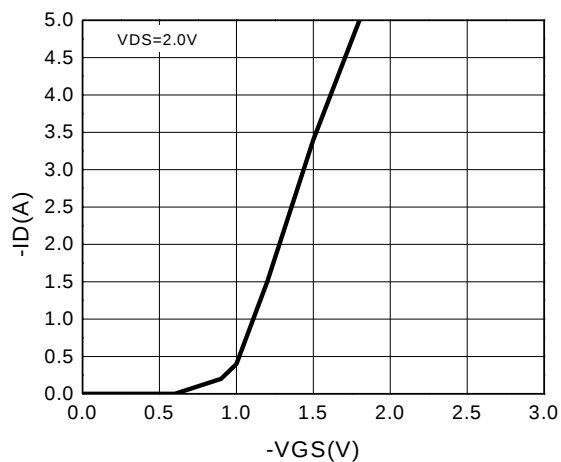
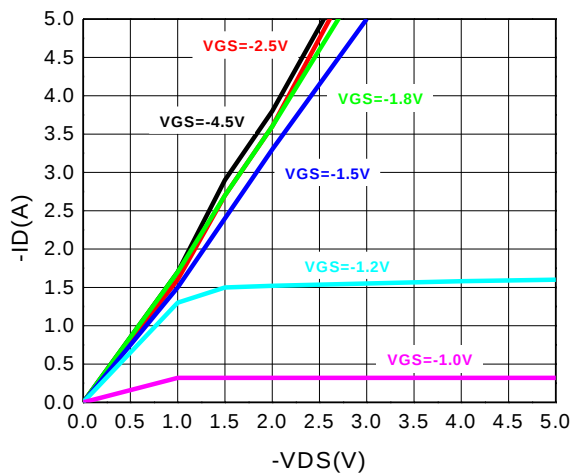
绝对最大额定值

符号	参数	值	单位
V_{DSS}	漏源电压	-20	V
V_{GS}	栅源电压	±8	V
I_D	持续漏极电流	-2.0	A
I_{DM}	脉冲漏极电流	-10	A
P_D	功率耗散	0.7	W
T_J	结温	-55~150	℃
T_{stg}	贮存温度	-55~150	℃
$R_{\theta JA}$	结至环境热阻	100	℃/W

Electrical Characteristics (T_J=25 °C, unless otherwise noted)

Symbol	Parameter	Test Condition	Min	Typ	Max	Unit
Off Characteristics						
BV _{DSS}	Drain to Source Breakdown Voltage	V _{GS} =0V, I _D =-250μA	-20			V
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =-20V, V _{GS} =0V			-1	μA
I _{GSS}	Gate-to-Source Leakage Current	V _{GS} = ±8V, V _{DS} =0V			±100	nA
On Characteristics						
R _{DS(ON)}	Static Drain-to-Source On-Resistance	V _{GS} =-4.5V, I _D =-2.8A		90	110	mΩ
		V _{GS} =-2.5V, I _D =-2A		110	150	
V _{GS(TH)}	Gate Threshold Voltage	V _{DS} = V _{GS} , I _D =-250μA	-0.4	-0.6	-1	V
g _{fs}	Forward Transconductance	V _{DS} =-10V, I _D =-2.7A		7.0		S
Dynamic Characteristics						
C _{iss}	Input Capacitance	V _{GS} =0V, V _{DS} =-15V, f=1.0MHz		480		pF
C _{oss}	Output Capacitance			46		
C _{rss}	Reverse Transfer Capacitance			10		
Switching Characteristics						
Q _{g(TOT)}	Total Gate Charge	V _{DS} =-6V, V _{GS} =-4.5V, I _D =-2.8A		7.2		nC
Q _{g(TH)}	Threshold Gate Charge			2.2		
Q _{gs}	Gate-Source Charge			2.2		
Q _{gd}	Gate-Drain Charge			1.2		
td(on)	Turn-on Delay Time	V _{GS} =-4.5V, V _{DS} =-6V, R _L =6Ω, R _G =6Ω		38		ns
tr	Rise Time			25		
td(off)	Turn-off Delay Time			43		
tf	Fall Time			5		
Drain-Source Diode Characteristics and Maximum Ratings						
V _{SD}	Forward Diode Voltage	V _{GS} =0V, I _S =-1A		-0.7	-1.4	V

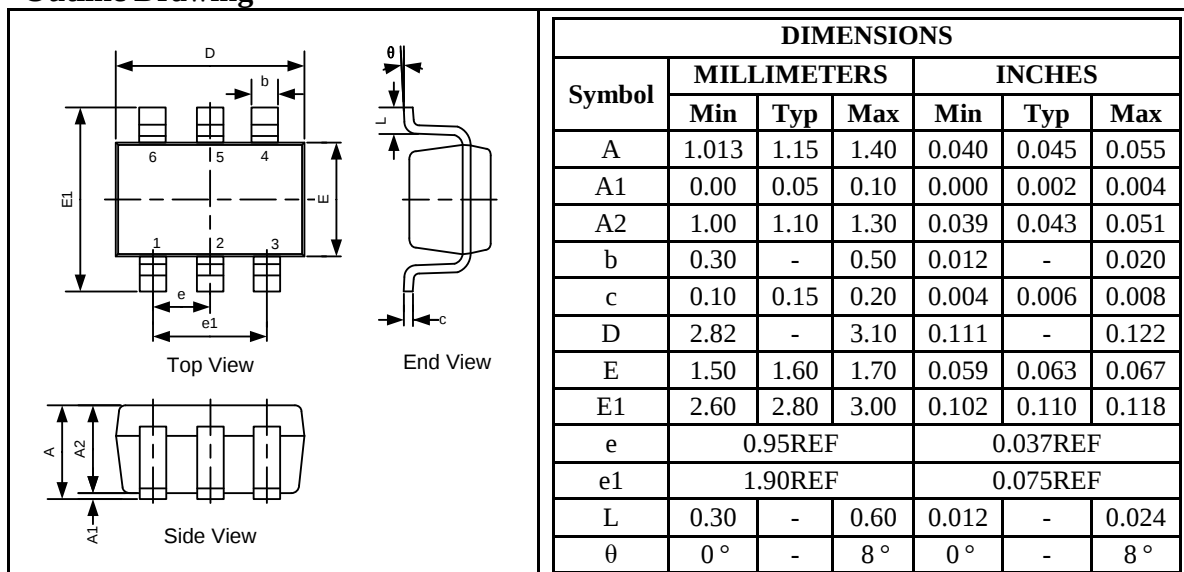
Typical Characteristics ($T_J=25^\circ\text{C}$, unless otherwise noted)



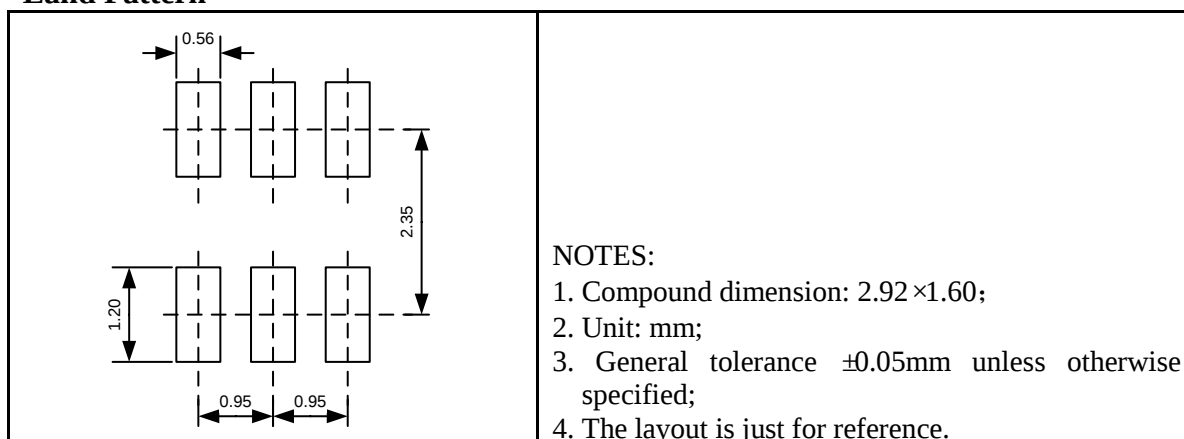
Package Information

UM8515 SOT23-6

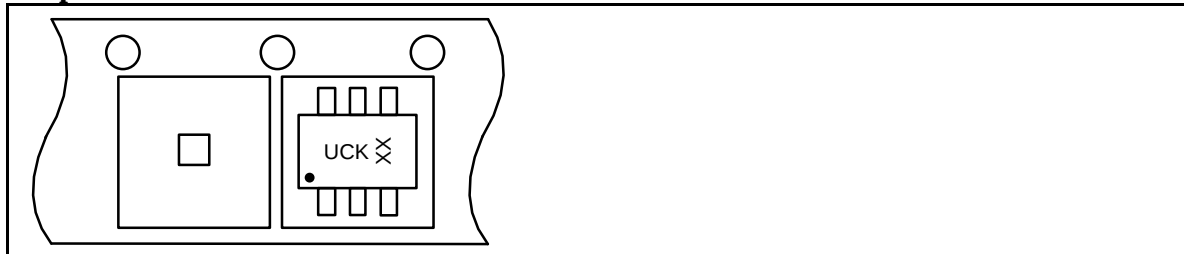
Outline Drawing



Land Pattern



Tape and Reel Orientation



GREEN COMPLIANCE

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All Union components are compliant with the RoHS directive, which helps to support customers in their compliance with environmental directives. For more green compliance information, please visit:

http://www.union-ic.com/index.aspx?cat_code=RoHSDeclaration

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