Product Summary

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	I_D
20V	75mΩ@4.5V	1.2A
	90mΩ@2.5V	

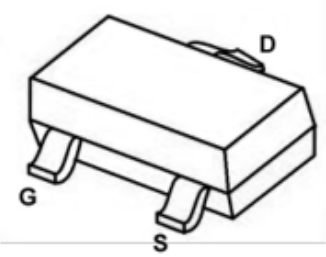
Feature

- TrenchFET Power MOSFET
- Excellent RDS(on) and Low Gate Charge

Applications

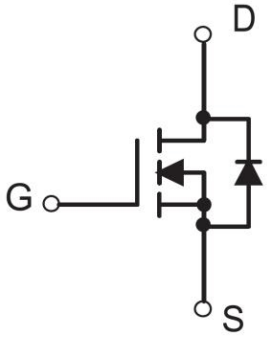
- DC/DC Converter
- Load Switch for Portable Devices
- Battery Switch

Package

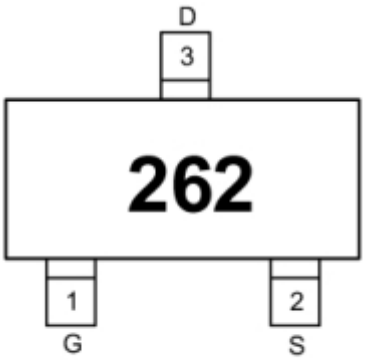


SOT-523

Circuit diagram



Marking



262 =Device Code

Absolute maximum ratings

(T_a=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	±12	V
Continuous Drain Current	I_D	1.2	A
Pulsed Drain Current	I_{DM}	4.8	A
Maximum Power Dissipation	P_D	0.15	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	833	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55~ +150	℃

Electrical characteristics

(T_A=25℃, unless otherwise noted)

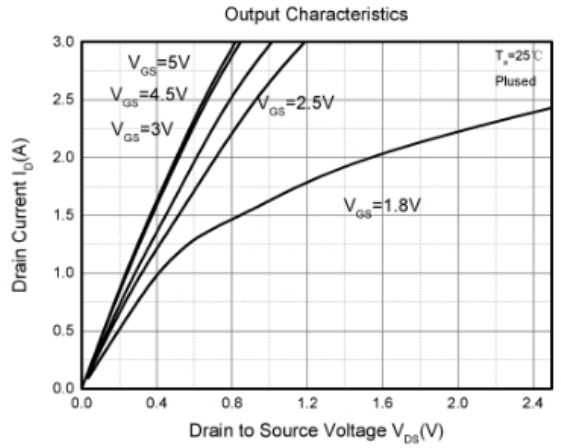
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-source breakdown voltage	$BV_{(BR)DSS}$	V_{GS} = 0V, I_D =250μA	20			V
Zero gate voltage drain current	I_{DSS}	V_{DS} =20V, V_{GS} = 0V			1	uA
Gate-body leakage current	I_{GSS}	V_{GS} =±10V, V_{DS} = 0V			±0.1	uA
Gate threshold voltage	$V_{GS(th)}$	V_{DS} =V_{GS}, I_D =250μA	0.4	0.65	1	V
Drain-source on-resistance	$R_{DS(on)}$	V_{GS} =4.5V, I_D =1A		75	90	mΩ
		V_{GS} =2.5V, I_D =0.5A		90	110	
Dynamic Characteristics[4)]						
Input capacitance	C_{iss}	V_{DS}=10V, V_{GS}=0V, f=1MHz		220		pF
Output capacitance	C_{oss}			40		
Reverse transfer capacitance	C_{rss}			20		
Total gate charge	Q_g	V_{DS} =10V, V_{GS} =4.5V, I_D =2A		2.7		nC
Gate-source charge	Q_{gs}			0.4		
Gate-drain charge	Q_{gd}			0.5		
Switching Characteristics[4)]						
Turn-on Delay Time	$T_{d(on)}$	V_{DD}=10V, R_G =6Ω, V_{GEN}=4.5V, R_L=3.3Ω		2.3		nS
Turn-on Rise Time	T_r			3.1		
Turn-Off Delay Time	$T_{d(off)}$			20		
Turn-Off Fall Time	t_f			2.5		
Source-Drain Diode Characteristics[4)]						
Diode Forward voltage	V_{SD}	I_S=1A, V_{GS}=0V			1.2	V

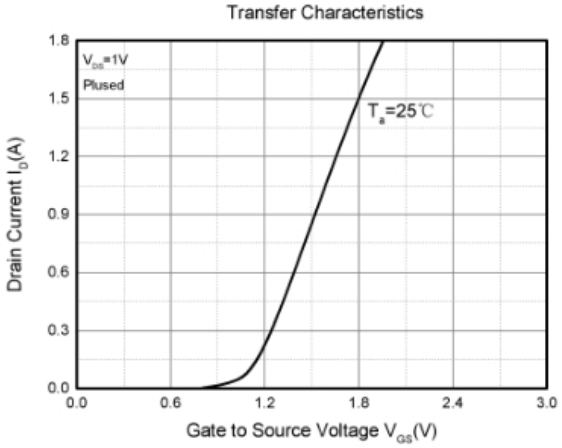
Notes:

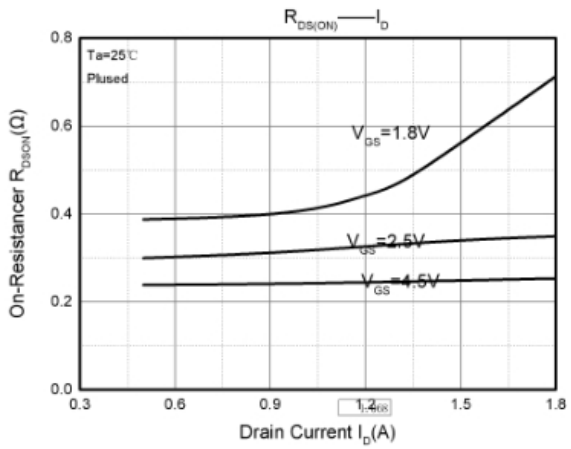
1. Pulse Test: Pulse width≤300μs, duty cycle ≤2%.

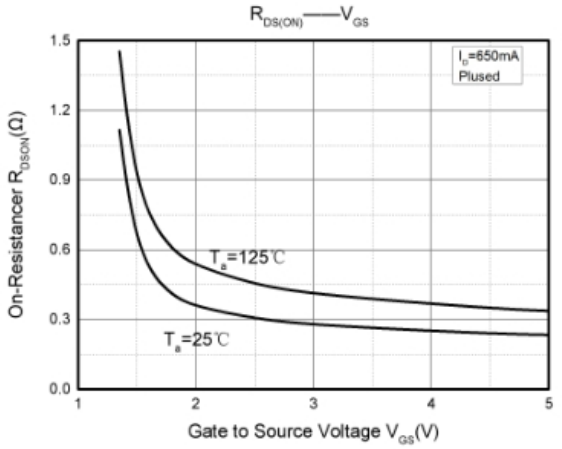
2. These parameters have no way to verify.

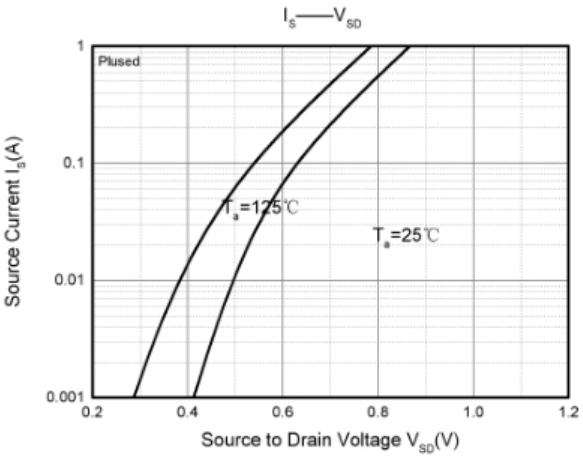
Typical Characteristics

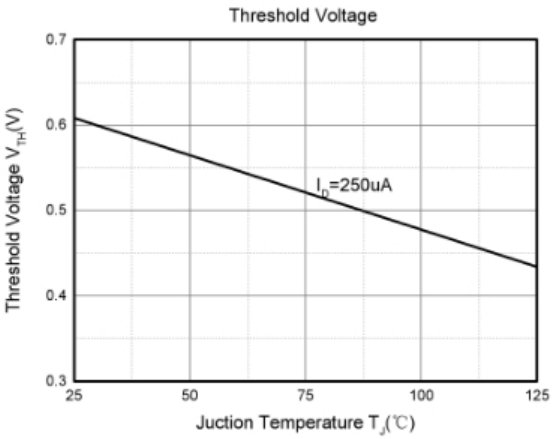




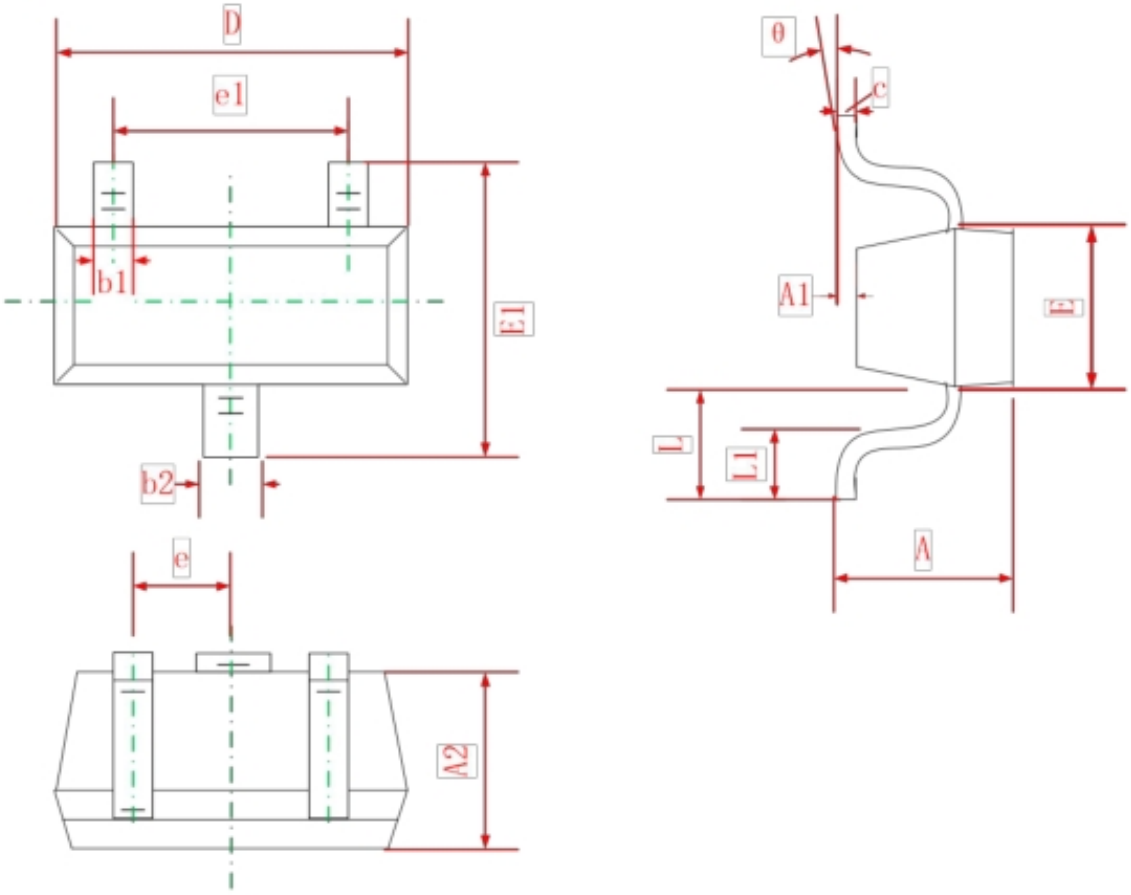








SOT-523 Package Information



Symbol	Dimensions In Millimeters	
	Min	Max
A	0.700	0.900
A1	0.000	0.100
A2	0.700	0.800
b1	0.150	0.250
b2	0.250	0.350
C	0.100	0.200
D	1.500	1.700
E	0.700	0.900
E1	1.450	1.750
e	0.500 TYP	
e1	0.900	1.100
L	0.400 REF	
L1	0.260	0.460
θ	0°	8°