

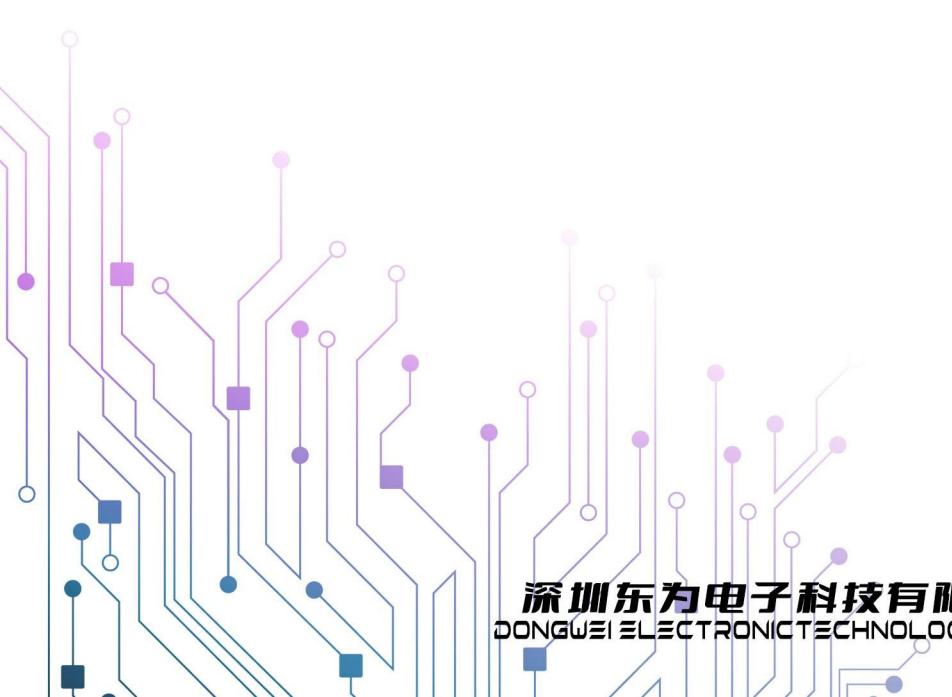


产品规格手册
PRODUCT SPECIFICATION MANUAL

An abstract background graphic featuring a complex network of interconnected nodes. The nodes are represented by small circles in various colors, including cyan, purple, and blue. They are connected by a web of thin, light-colored lines, creating a three-dimensional, geometric shape that resembles a pyramid or a mountain range.

CJE3134K

N Channel Advanced Power MOSFET
SOT523/20V/1.2A



深圳东为电子科技有限公司
DONGWEI ELECTRONIC TECHNOLOGY CO.,LTD

A decorative graphic on the left side of the page features a stylized representation of a printed circuit board (PCB). It consists of several parallel tracks in shades of blue and purple, with various component symbols like resistors, capacitors, and transistors placed along them.



Product Summary

$V_{(BR)DSS}$	$R_{DS(on)MAX}$	I_D
20V	110mΩ@4.5V	1.2A
	150mΩ@2.5V	

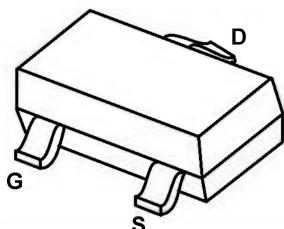
Feature

- Surface Mount Package
- N-Channel Switch with Low $R_{DS(on)}$
- Operated at Low Logic Level Gate Drive
- ESD Protected

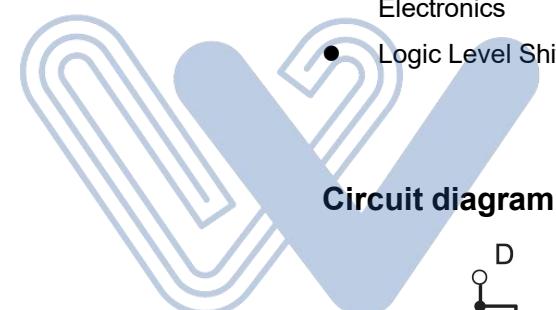
Application

- Load/Power Switching
- Interfacing Switching
- Battery Management for Ultra Small Portable Electronics
- Logic Level Shift

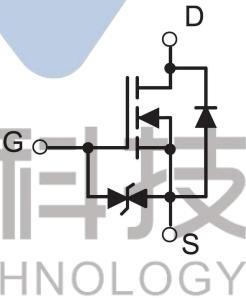
Package



SOT-523

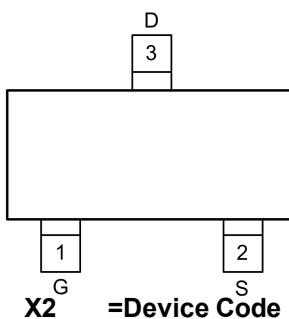


Circuit diagram



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Marking



**Absolute maximum ratings (Ta=25°C unless otherwise noted)**

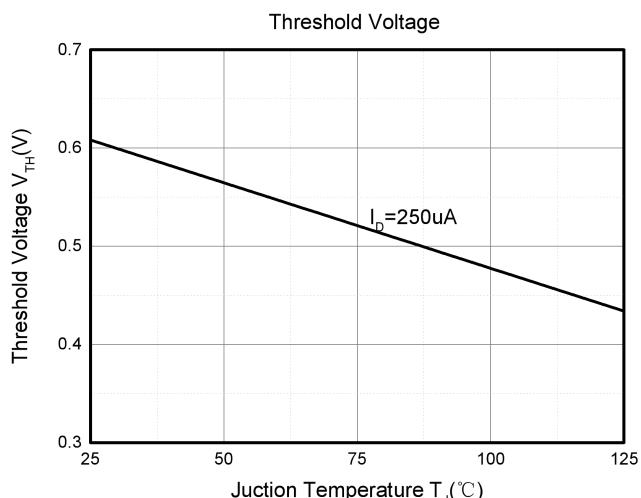
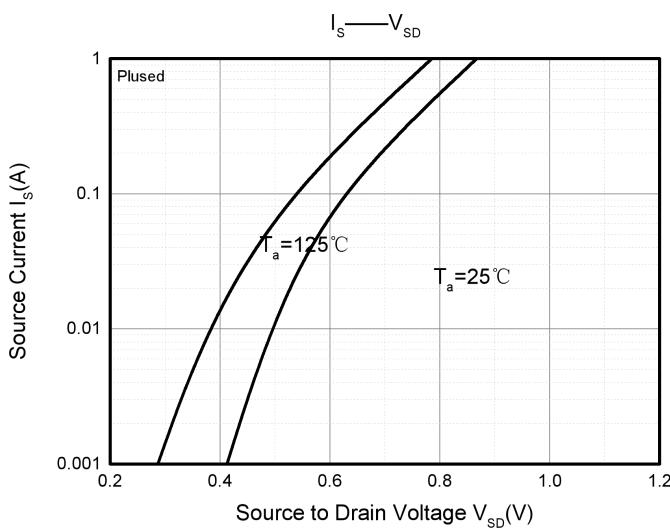
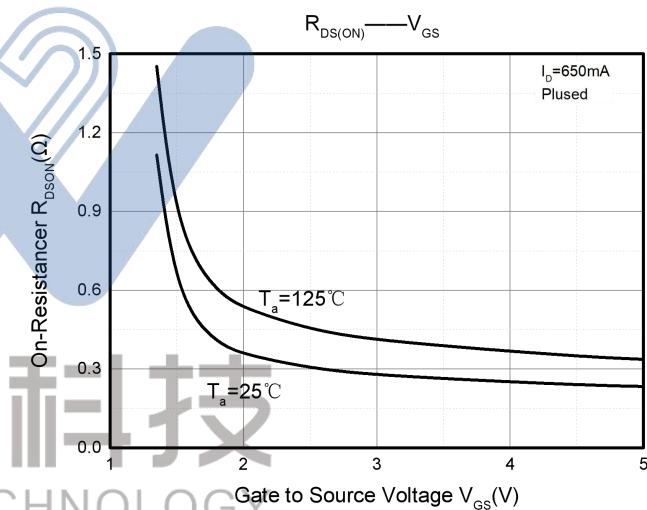
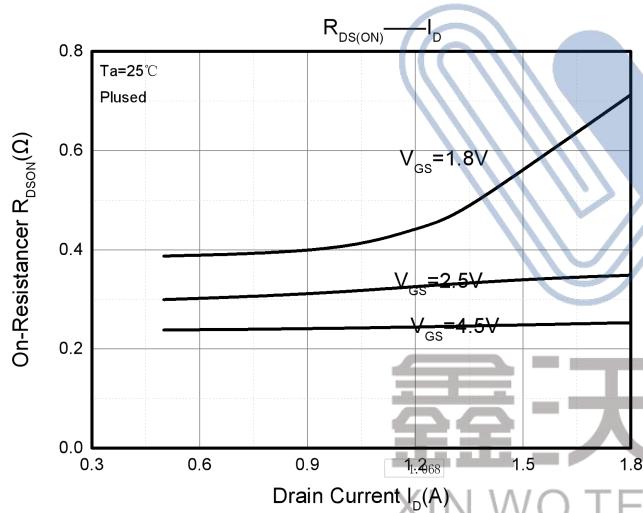
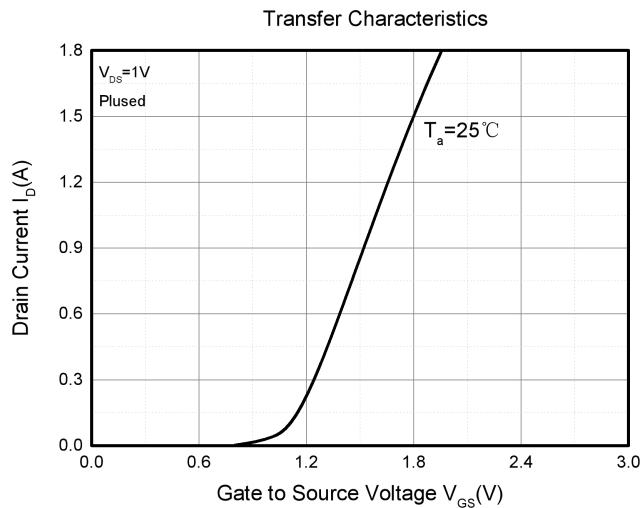
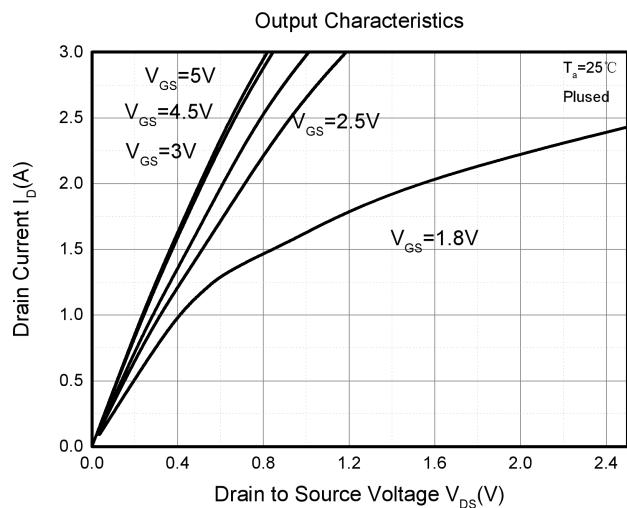
Parameter	Symbol	Value	Unit
Drain-Source Voltage	V _{DS}	20	V
Gate-Source Voltage	V _{GS}	±12	V
Continuous Drain Current	I _D	1.2	A
Pulsed Drain Current	I _{DM}	1.8	A
Power Dissipation	P _D	0.15	W
Thermal Resistance from Junction to Ambient	R _{θJA}	833	°C/W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55~ +150	°C

Electrical characteristics (T_A=25 °C, unless otherwise noted)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-source breakdown voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D = 250μA	20			V
Zero gate voltage drain current	I _{DSS}	V _{DS} = 16V, V _{GS} = 0V			1	μA
Gate-body leakage current	I _{GSS}	V _{GS} = ±10V, V _{DS} = 0V			±10	uA
Gate threshold voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250μA	0.3	0.65	1	V
Drain-source on-resistance	R _{DS(on)}	V _{GS} = 4.5V, I _D = 1.2A		90	110	mΩ
		V _{GS} = 2.5V, I _D = 0.8A		115	150	
		V _{GS} = 1.8V, I _D = 0.3A		165	215	
Dynamic characteristics						
Input Capacitance	C _{iss}	V _{DS} = 16V, V _{GS} = 0V, f = 1MHz		79	120	pF
Output Capacitance	C _{oss}			13	20	
Reverse Transfer Capacitance	C _{rss}			9	15	
Switching Characteristics						
Turn-on delay time	t _{d(on)}	V _{GS} = 4.5V, V _{DS} = 10V, I _D = 500mA, R _{GEN} = 10Ω		6.7		ns
Turn-on rise time	t _r			4.8		
Turn-off delay time	t _{d(off)}			17.3		
Turn-off fall time	t _f			7.4		
Source-Drain Diode characteristics						
Body Diode Voltage	V _{SD}	I _S = 0.5A, V _{GS} = 0V		0.7	1.3	V

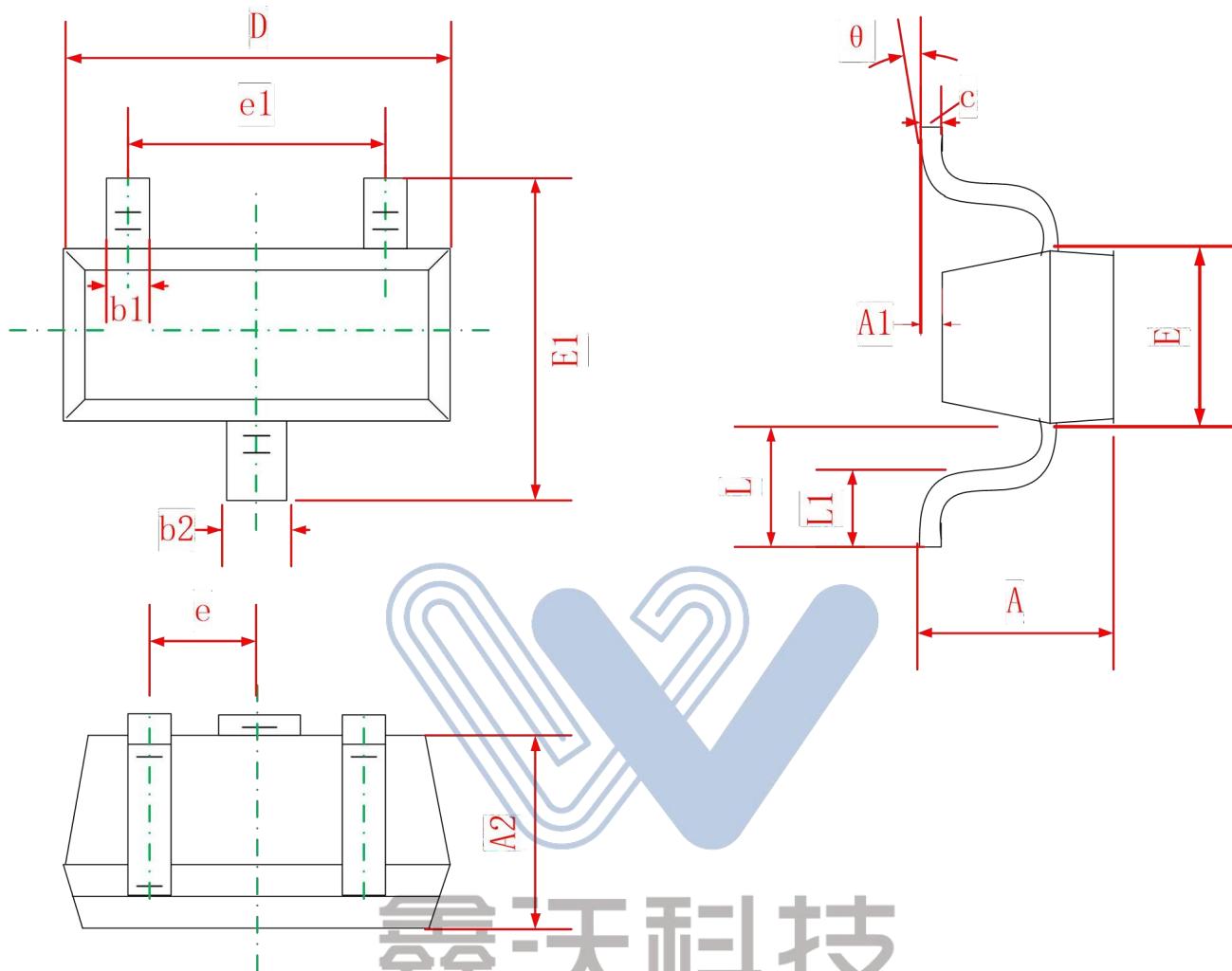


Typical Characteristics





SOT-523 Package Information



Symbol	Min	Dimensions In Millimeters	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°