

20V N-Channel Enhancement Mode Power MOSFET

MAIN CHARACTERISTICS

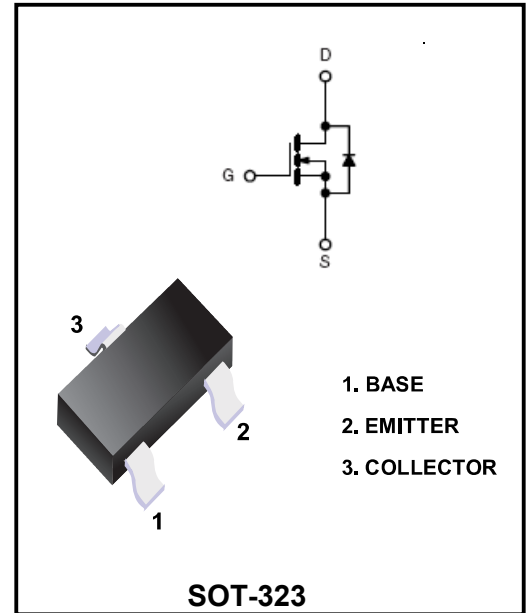
I_D	2.1A
V_{DSS}	20V
R_{DS(on)-typ(@V_{GS}=4.5V)}	<0.06Ω(Typ:0.045Ω)
R_{DS(on)-typ(@V_{GS}=2.5V)}	<0.115Ω(Typ:0.07Ω)

FEATURE

◆TrenchFET Power MOSFET

APPLICATION

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



Product Specification Classification

Part Number	Package	Marking	Pack
YFW2302W	SOT-323	2302	3000PCS/Tape

Maximum Ratings at T_c=25°C unless otherwise specified

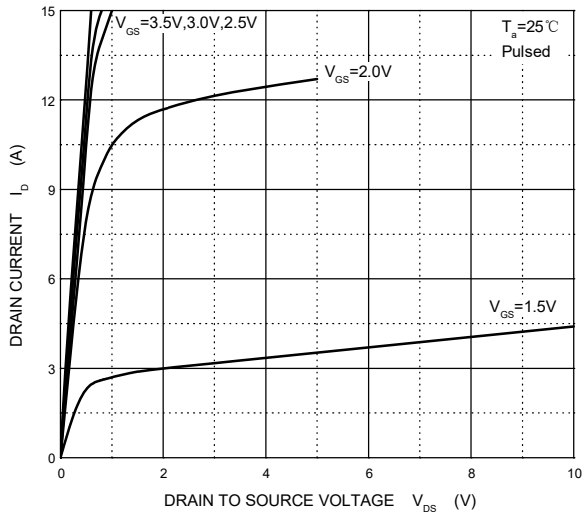
Characteristics	Symbols	Value	Units
Drain-Source Voltage	V _{DS}	20	V
Gate - Source Voltage	V _{GS}	±8	V
Continuous Drain Current	I _D	2.1	A
Continuous Source-Drain Current(Diode Conduction)	I _S	0.6	A
Power Dissipation	P _D	0.35	W
Operating Junction Temperature Range	T _J	150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C
Thermal Resistance from Junction to Ambient (t≤5s)	R _{θJA}	357	°C/W

Maximum Ratings at Ta=25°C unless otherwise specified

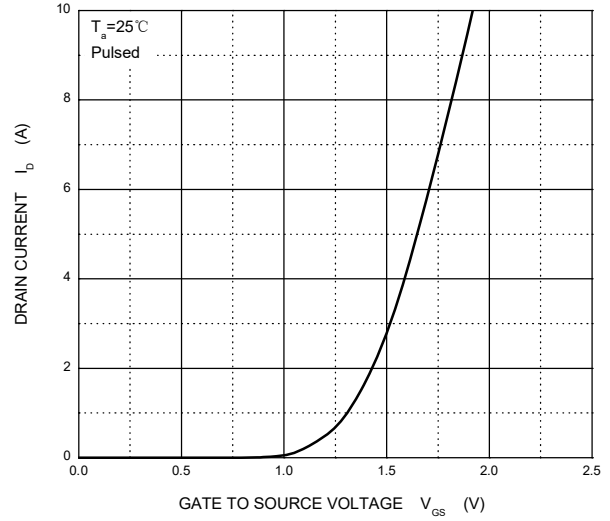
Characteristics	Test Condition	Symbols	Min	Typ	Max	Units
Drain-Source Breakdown Voltage	$V_{GS}=0V, I_D=10\mu A$	$V_{(BR)DSS}$	20	-	-	V
GateThreshold Voltage	$V_{DS}=V_{GS}, I_D=50\mu A$	$V_{GS(th)}$	0.65	0.95	1.2	V
Gate-body leakage	$V_{DS}=0V, V_{GS}=\pm 8V$	I_{GSS}	-	-	± 100	nA
Zero Gate Voltage Drain Current	$V_{DS}=20V, V_{GS}=0V$	I_{DSS}	-	-	1	μA
Drain-Source On-Resistance ^a	$V_{GS}=4.5V, I_D=3.6A$	$R_{DS(ON)}$	-	0.045	0.060	Ω
	$V_{GS}=2.5V, I_D=3.1A$		-	0.070	0.115	Ω
Forward transconductance ^a	$V_{DS}=5V, I_D=3.6A$	g_{fs}		8		S
Diode forward voltage	$I_S=0.94A, V_{GS}=0V$	V_{SD}		0.76	1.2	V
Total gate charge	$V_{DS}=10V$ $V_{GS}=4.5V$ $I_D=3.6A$	Q_g		4.0	10	nC
Gate-source charge		Q_{gs}		0.65	-	
Gate-drain charge		Q_{gd}		1.5	-	
Input Capacitance ^b	$V_{DS}=10V$ $V_{GS}=0V$ $f=1MHz$	C_{iss}	-	300	-	pF
Output Capacitance ^b		C_{oss}	-	120	-	
Reverse Transfer Capacitance ^b		C_{rss}	-	80	-	
Turn-on delay time	$V_{DD}=10V,$ $R_L=5.5\Omega, I_D\approx 3.6A,$ $V_{GEN}=4.5V, R_g=6\Omega$	$t_{d(on)}$	-	7	15	ns
Rise time		t_r		55	80	
Turn-off delay time		$t_{d(off)}$	-	16	60	
Fall time		t_f	-	10	25	

Typical Characteristics

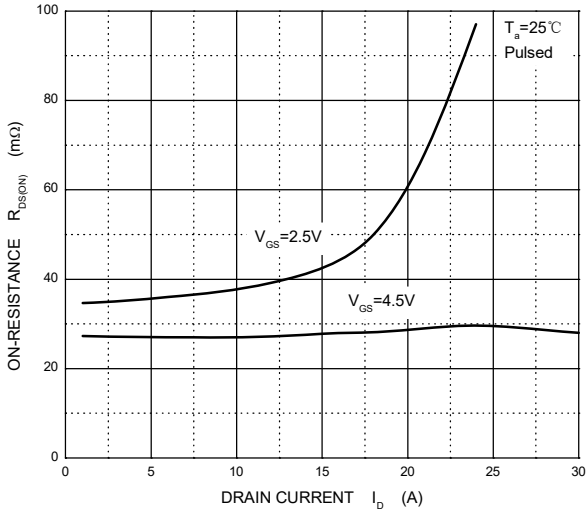
Output Characteristics



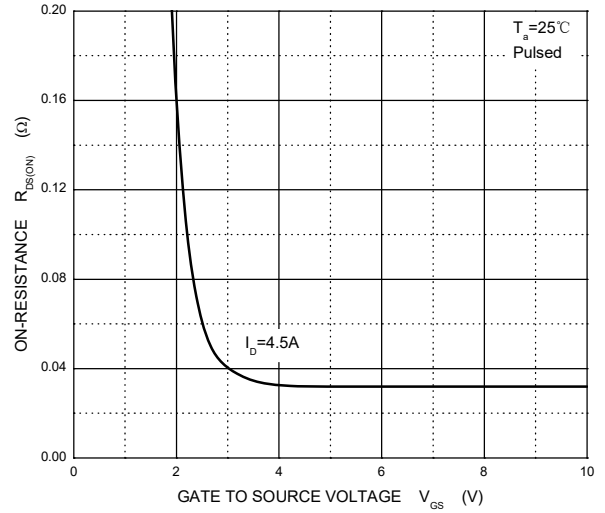
Transfer Characteristics



$R_{DS(ON)}$ — I_D

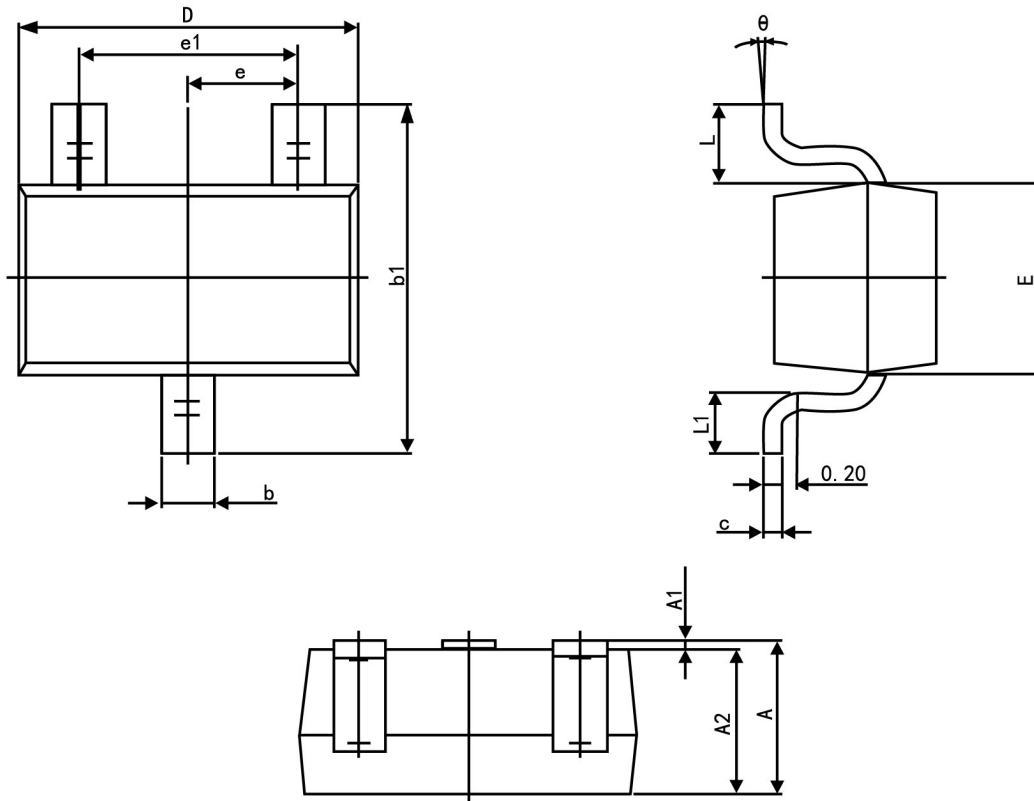


$R_{DS(ON)}$ — V_{GS}



Package Outline

SOT-323



Symbol	Dimension in Millimeters	
	Min	Max
A	0.900	1.100
A1	0.000	0.100
A2	0.900	1.000
b	0.200	0.400
c	0.080	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.450
e	0.650 TYP.	
e1	1.200	1.400
L	0.525 REF.	
L1	0.260	0.460
θ	0°	8°

单击下面可查看定价，库存，交付和生命周期等信息

[>>YFW\(佑风微\)](#)