

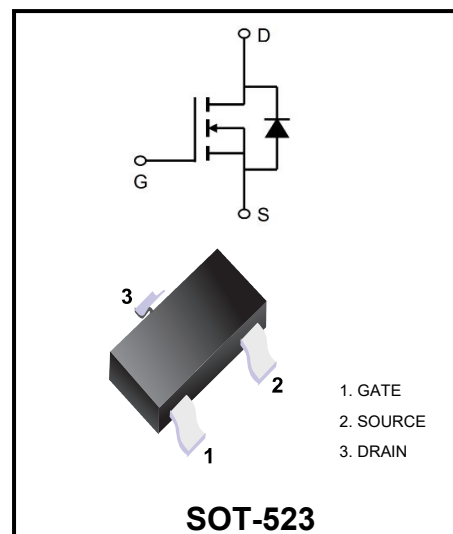
20V N-CHANNEL ENHANCEMENT MODE MOSFET

MAIN CHARACTERISTICS

I_D	2.1A
V_{DSS}	20V
R_{DS(on)-typ}(@V_{GS}=4.5V)	<0.060Ω(Typ:0.045Ω)

Application

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



SOT-523

Marking Code

YFW2302T	2302
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Maximum Ratings at Tc=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
Power Dissipation	P_D	0.35	W
Thermal Resistance from Junction to Ambient (t≤5s)	R_{θJA}	357	°C/W
Operating and Storage Temperature Range	T_J , T_{STG}	-55 to +150	°C

Maximum Ratings at Tc=25°C unless otherwise specified

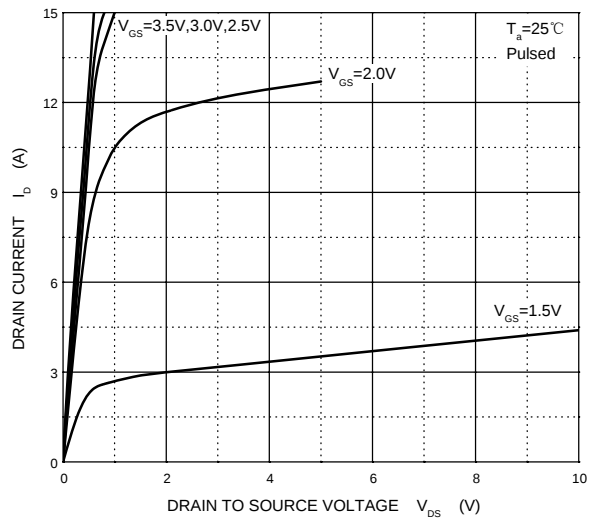
Characteristics	Test Condition	Symbols	Min	Typ	Max	Units
Drain-Source Breakdown Voltage	V _{GS} =0V, I _D =250uA	V(BR)DSS	20	-	-	V
Gate -Threshold Voltage	V _{DS} =V _{GS} , I _D =50uA	V_{GS(th)}	0.65	0.95	1.2	V
Gate to Body Leakage Current	V _{GS} =±8V, V _{DS} =0V	I_{GSS}	-	-	±100	nA
Zero Gate Voltage Drain Current	V _{DS} =20V, V _{GS} =0V	I_{DSS}	-	-	1.0	μA
Static Drain-Source On-Resistance (note1)	V _{GS} =4.5V, I _D =2A	R_{DS(ON)}	-	0.045	0.060	Ω
	V _{GS} =2.5V, I _D =1A		-	0.070	0.115	
Continuous Source-Drain Current(Diode Conduction)		I_S	-	-	0.6	A
Forward transconductance (note1)	V _{DS} =5V, I _D =2.0A	g_{fs}	-	8	-	s
Drain to Source Diode Forward Voltage	I _S =0.94A,V _{GS} =0V	V_{SD}	-	0.76	1.2	V

Notes :

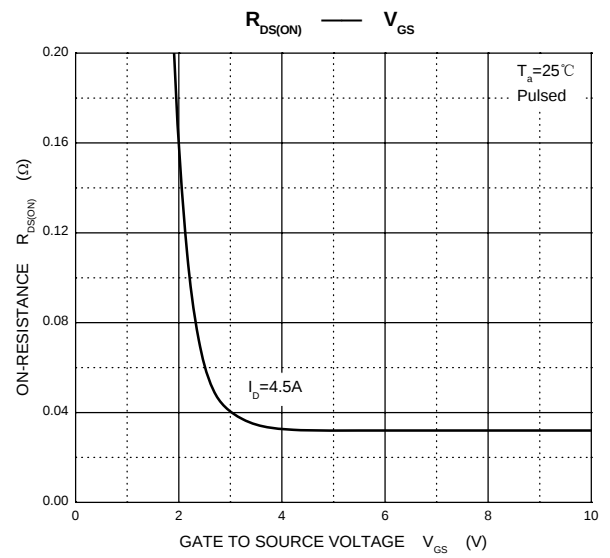
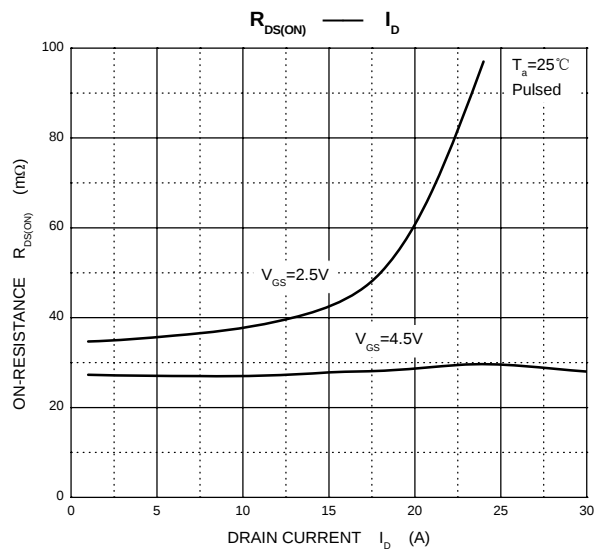
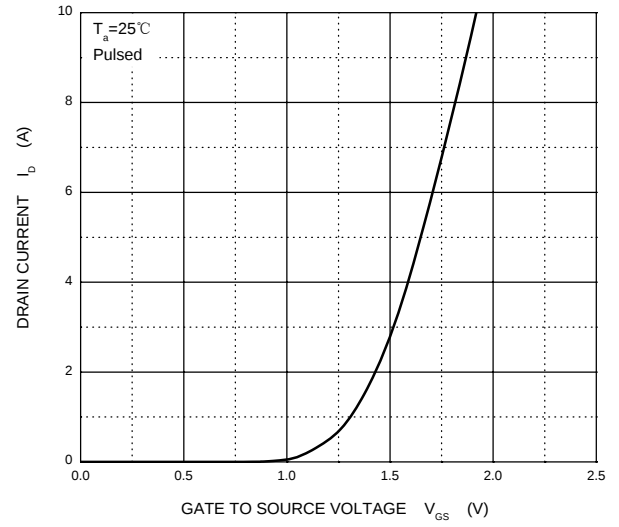
1. Pulse Test : Pulse width≤300μs, duty cycle ≤2%.
2. These parameters have no way to verify.

Typical Characteristics

Output Characteristics



Transfer Characteristics



Ordering information

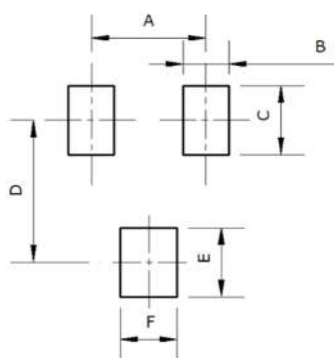
Package	Packing Description	Base Quantity	Packing Quantity
SOT-523	Tape/Reel, 7" reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-523

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	1.50	1.70	59	67
B	0.75	0.85	30	33
C	1.45	1.75	57	69
D	0.50TYP		0.020TYP	
E	0.90	1.10	35	43
G	0.00	0.10	0	4
H	0.60	0.80	24	31
J	0.10	0.20	4	8
K	0.15	0.35	6	14
L	0.26	0.46	10	18

The recommended mounting pad size



Millimeter (mm)	
Dim.	TYP
A	1.00
B	0.40
C	0.60
D	1.24
E	0.60
F	0.50

Disclaimer

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