NTR4501N

N-Channel MOSFET

BV_{DSS},T_A=25℃	I_D,T_A=25℃	$R_{DS(on)}$,typ@4.5V
18V	3.5A	70mΩ

Features

- $R_{DS(on)}$,typ=80mΩ@V_{GS} = 4.5V
- $R_{DS(on)}$,typ=90mΩ@V_{GS} = 2.5 V
- Super High dense cell design for extremely low $R_{DS(ON)}$
- Reliable and Rugged.

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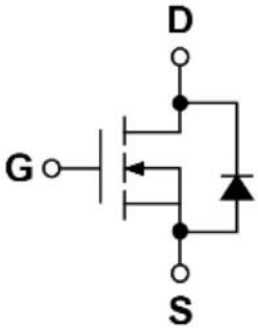

Applications

- Power Management
- Portable Equipment
- Battery Powered Systems

Absolute Maximum Ratings(T_A=25℃,unless otherwise noted.)

Parameter	Symbol	Limit	Unit
Drain-source Voltage	V_{DS}	18	V
Gate-source Voltage	V_{GS}	±8	V
Drain Current-Continuous	I_D	3.5	A

Electrical Characteristics(T_A=25℃,unless otherwise noted.)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Static Characteristics						
Drain-source Breakdown voltage	BV_{DSS}	V_{GS}=0V, I_D=250μA	18			V
Drain-to-Source Leakage Current	I_{DSS}	V_{DS}=12V, V_{GS}=0V			1	μA
Gate-source leakage current	I_{GSS}	V_{GS}=+8V, V_{DS}=0V,			+100	nA
		V_{GS}=-8V, V_{DS}=0V,			-100	nA
Gate Threshold voltage	$V_{GS(th)}$	V_{DS}=V_{GS}, I_D=250μA	0.4		1.3	V
Static Drain to Source on resistance	$R_{DS(on)}$	V_{GS}=4.5V, I_D=3.5A		70	80	mΩ
		V_{GS}=2.5V, I_D= 3.1A		75	90	mΩ
Source-Drain Diode Characteristics						
Diode Forward Voltage	V_{SD}	V_{GS}=0V, I_{SD}=0.94A			1.2	V

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Typical Characteristics

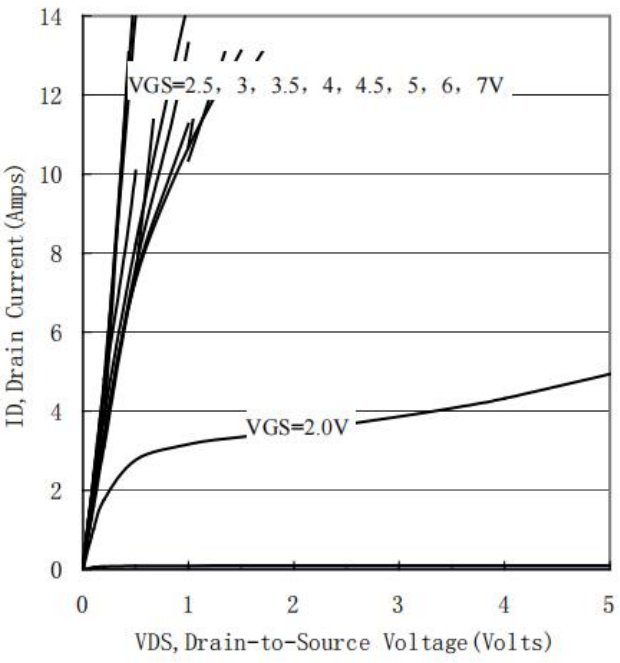

Figure 1. Output Characteristics

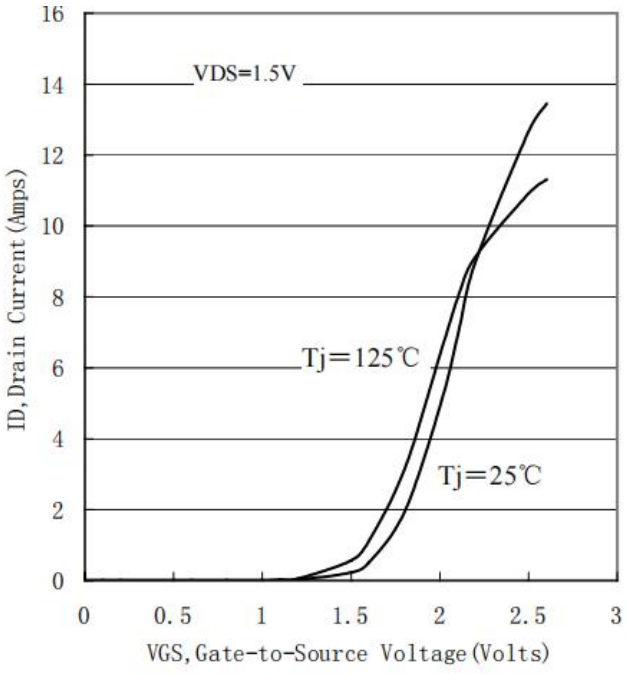

Figure 2. Transfer Characteristics

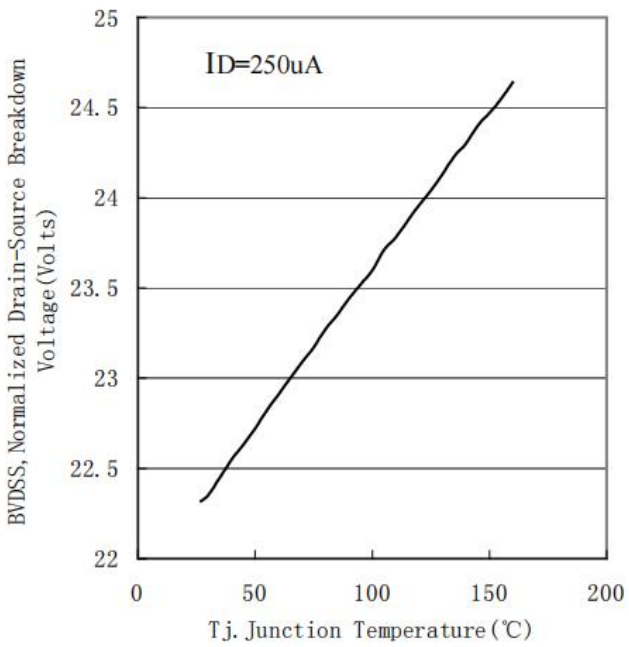

Figure 3. Breakdown Voltage Variation with Temperature

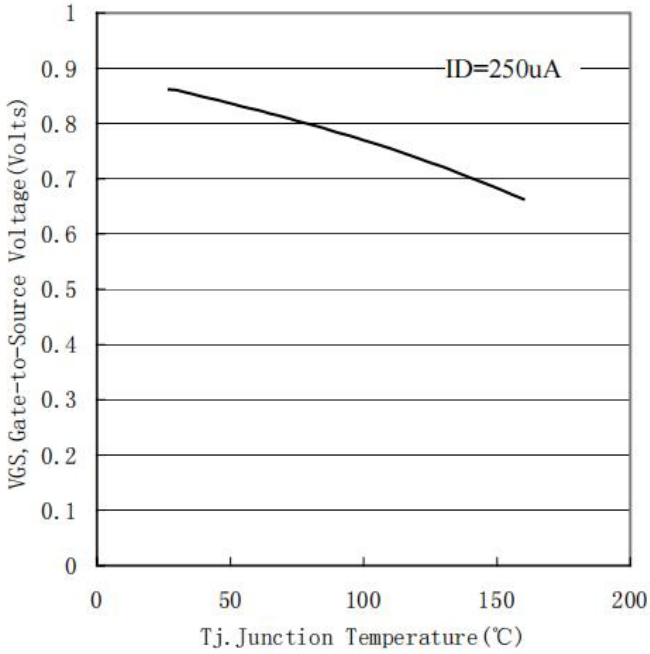

Figure 4. Gate Threshold Variation with Temperature

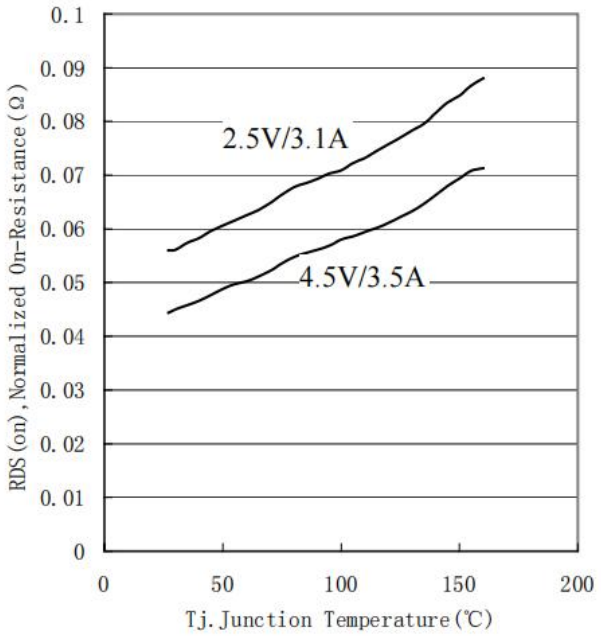

Figure 5. On-Resistance Variation with Temperature

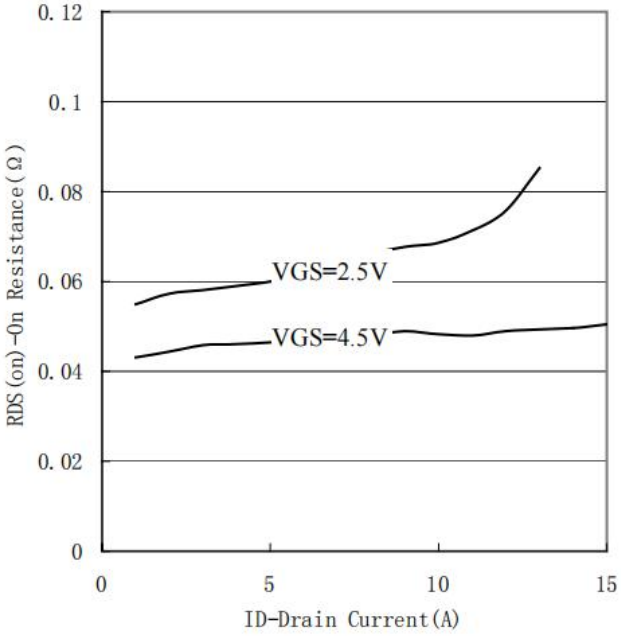

Figure 6. On-Resistance vs. Drain Current

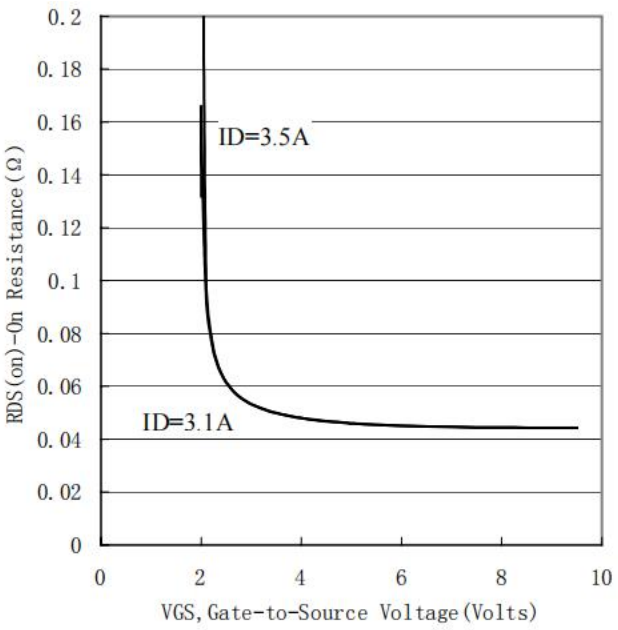

Figure 7. On-Resistance vs. Gate-to-Source Voltage

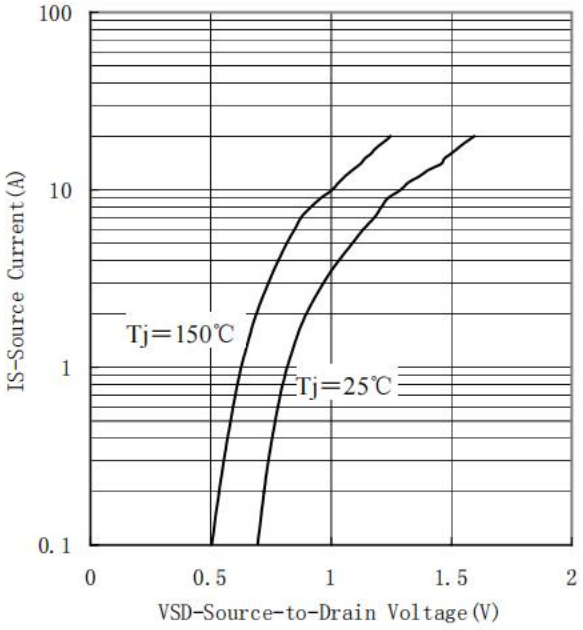

Figure 8. Source-Drain Diode Forward Voltage

Package Information

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Dimensions in mm