



YJUA320NP10AJ

N-Channel and P-Channel Complementary MOSFET

Product Summary

NMOS

V_{DS}	100V
I_D	1A
$R_{DS(ON)}$ (at $V_{GS}=10V$)	270m
$R_{DS(ON)}$ (at $V_{GS}=4.5V$)	344m

PMOS

V_{DS}	-100V
I_D	-0.9A
$R_{DS(ON)}$ (at $V_{GS}=-10V$)	565m
$R_{DS(ON)}$ (at $V_{GS}=-4.5V$)	640m

General Description

Voltage controlled small signal switch
Fast Switching Speed
Moisture Sensitivity Level 1
Epoxy Meets UL 94 V-0 Flammability Rating
Halogen Free

Applications

Power Management Functions
Motor Control
DC-DC convertor

Absolute Maximum Ratings ($T_J=25$ unless otherwise noted)



YJUA320NP10AJ

NMOS Electrical Characteristics ($T_J=25$ unless otherwise noted)

Parameter	
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YJUA320NP10AJ

NMOS Typical Electrical and Thermal Characteristics Diagrams

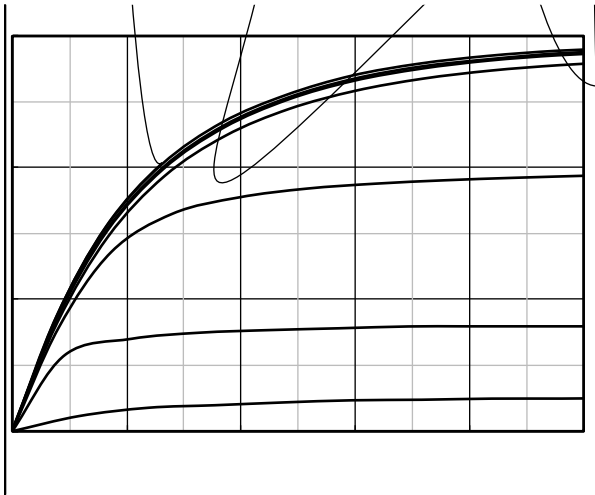


Figure 1. Output Characteristics

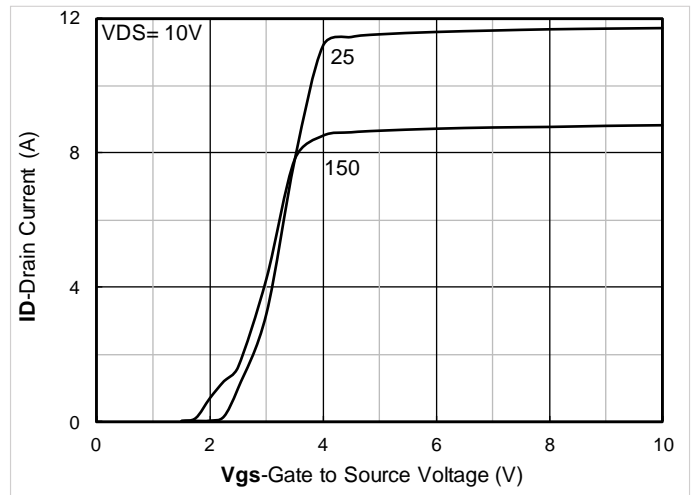


Figure 2. Transfer Characteristics

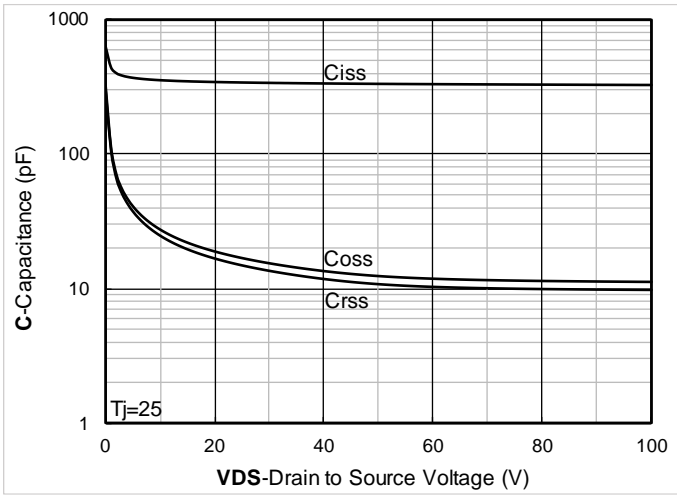


Figure 3. Capacitance Characteristics

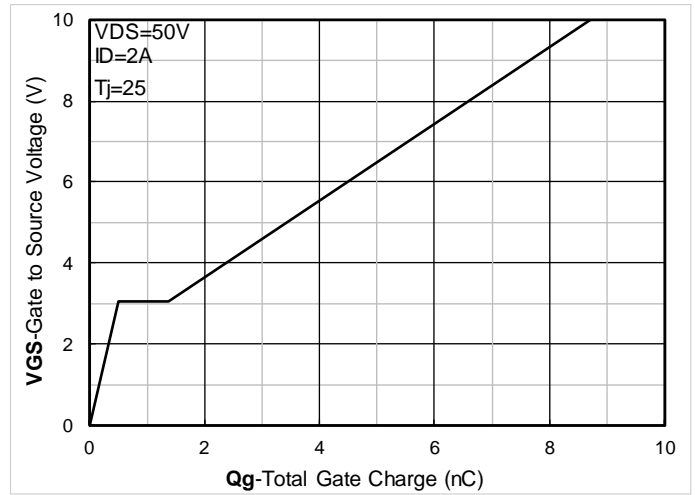


Figure 4. Gate Charge

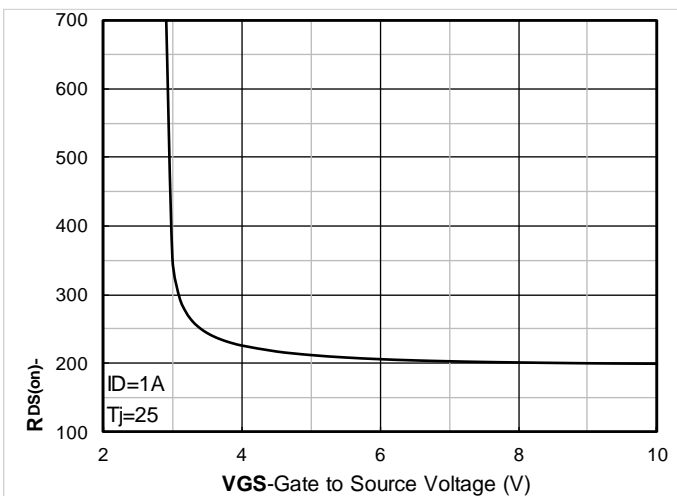


Figure 5(r)-3(ge)] TJ ET Q q 0.000008882 0 596.04 842.04 re W* n BT /F5 9.96 Tf 1 0 00 3iS



YJUA320NP10AJ

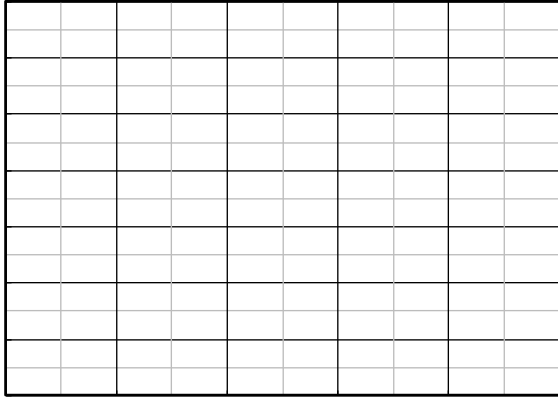


Figure 7. $R_{DS(on)}$ VS Drain Current

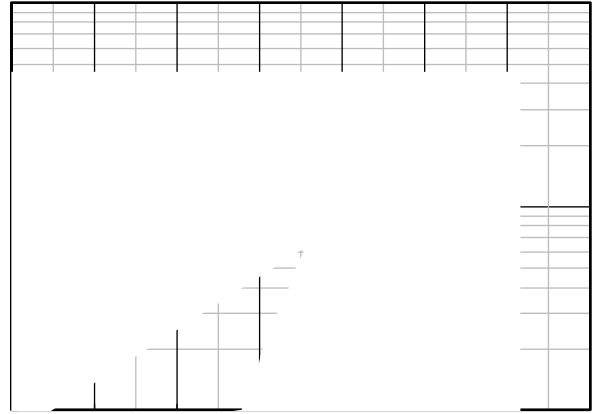


Figure 8. Forward characteristics of reverse diode

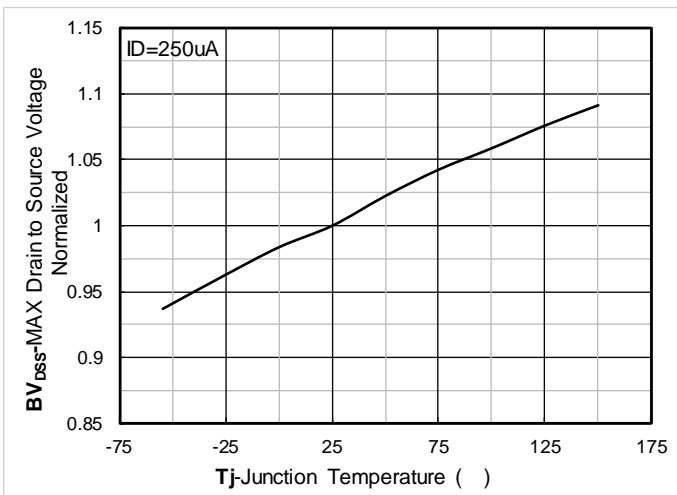


Figure 9. Normalized breakdown voltage



Figure 10. Normalized Threshold voltage

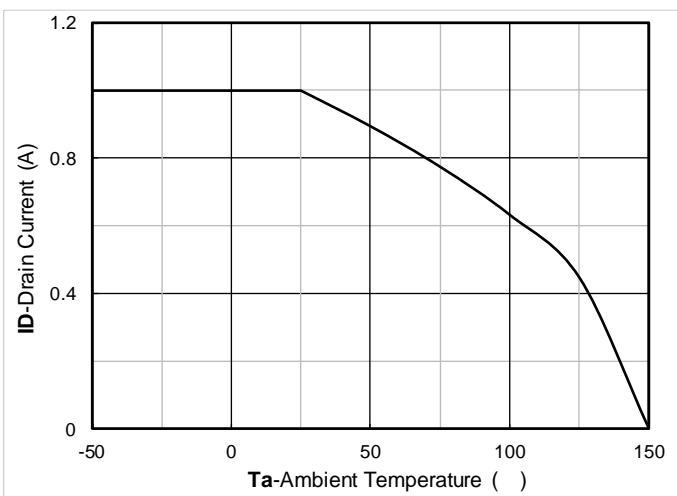


Figure 11. Current dissipation

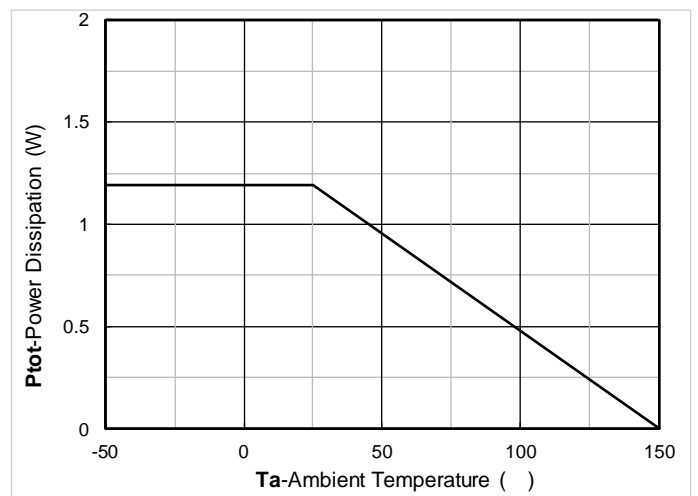


Figure 12. Power dissipation

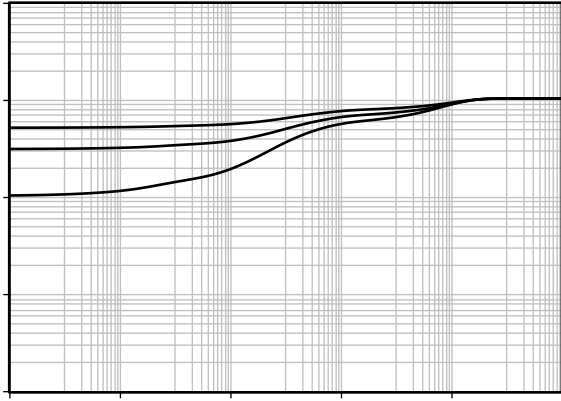


Figure 13. Maximum Transient Thermal Impedance

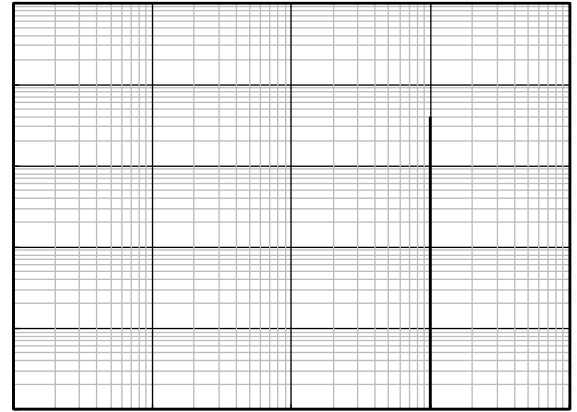


Figure 14. Safe Operation Area

PMOS Typical Electrical and Thermal Characteristics Diagrams

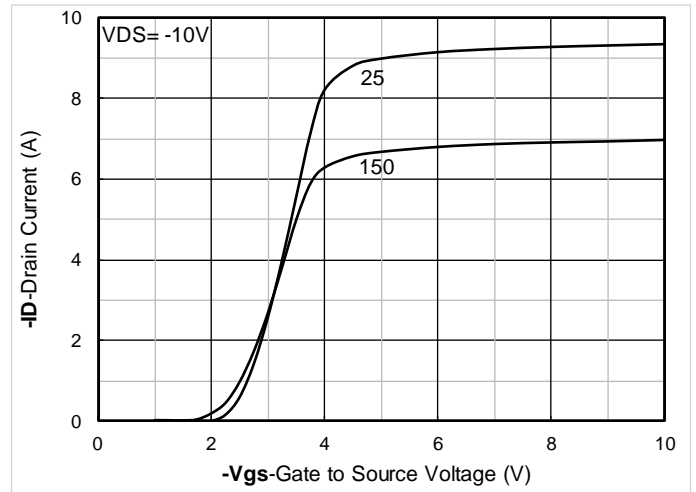
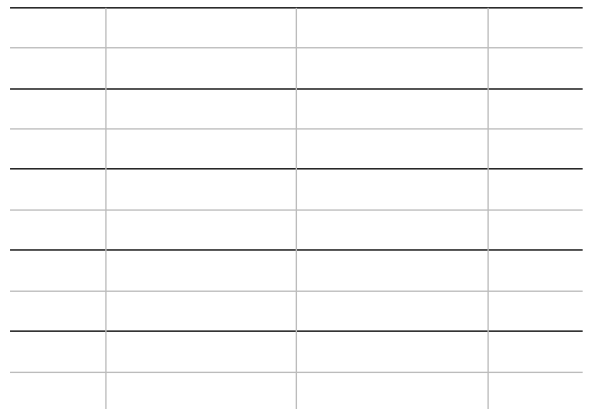
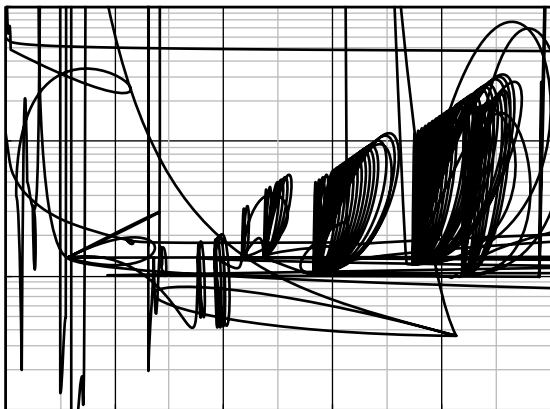


Figure 2. Transfer Characteristics

Figure 1. Output Characteristics





YJUA320NP10AJ

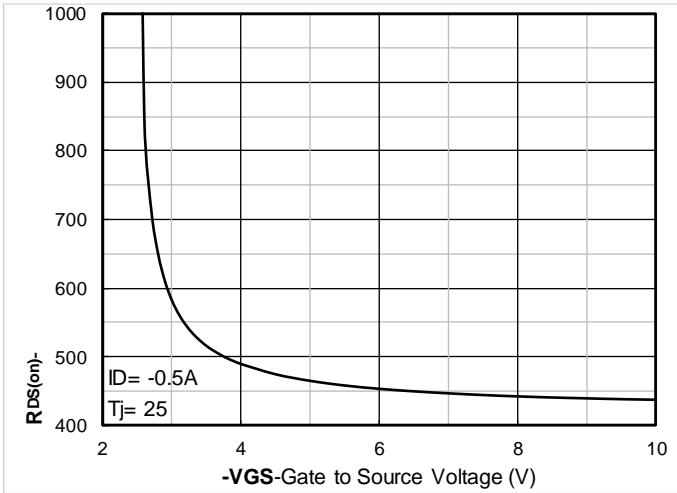


Figure 5. On-Resistance vs Gate to Source Voltage

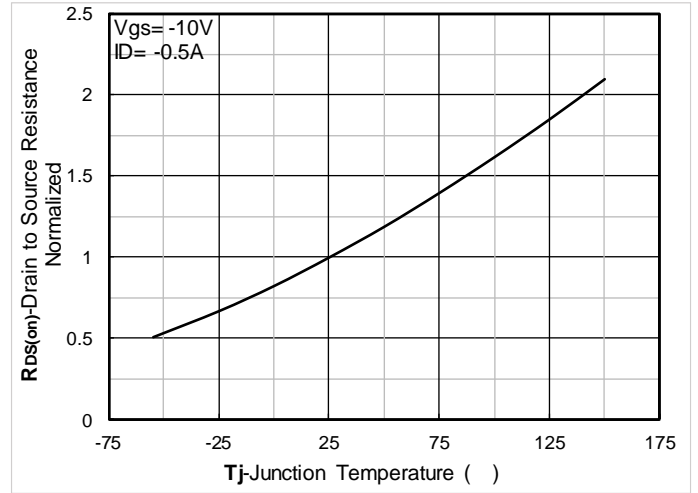


Figure 6. Normalized On-Resistance

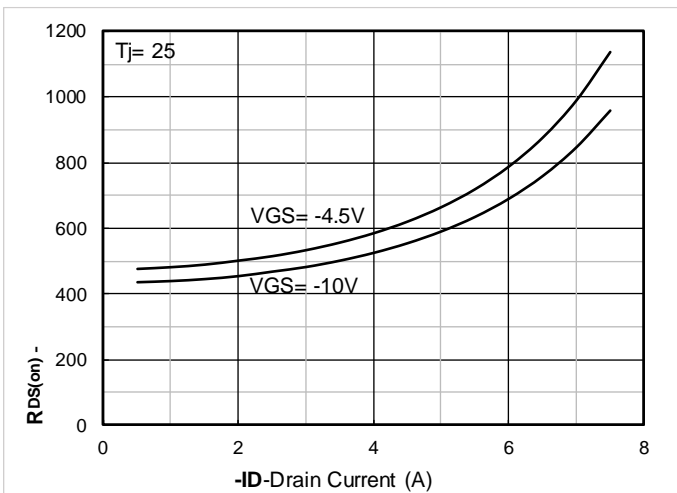


Figure 7. RDS(on) VS Drain Current

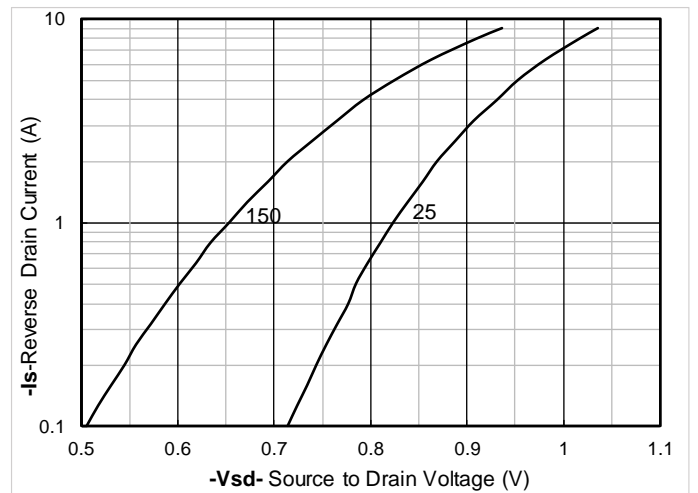


Figure 8. Forward characteristics of reverse diode

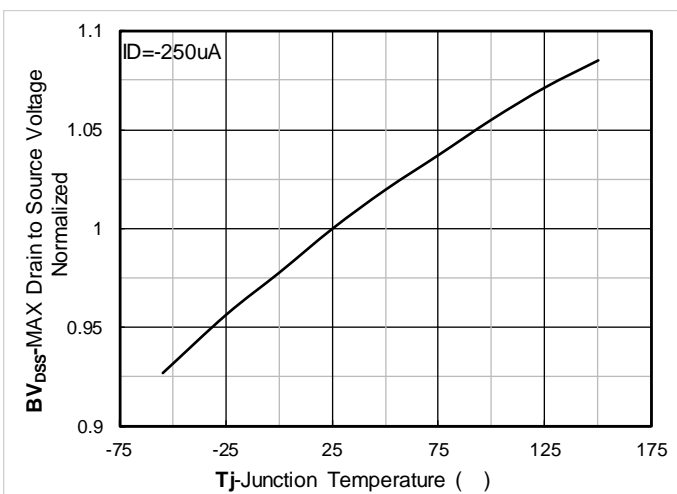


Figure 9. Normalized breakdown voltage

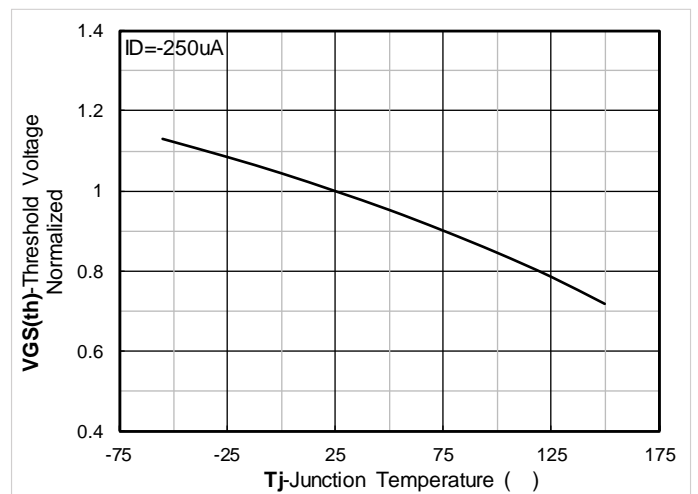


Figure 10. Normalized Threshold voltage



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PDFN3030-8L Package information

DIMENSIONS

SYM.

UNIT mm

NOTE:

- 1.PACKAGE BODY SIZES EXCLUDE MOLD FLASH AND GATE BURRS.
- 2.TOLERANCE 0.1mm UNLESS OTHERWISE SPECIFIED.
- 3.THE PAD LAYOUT IS FOR REFERENCE PURPOSES ONLY.



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