



N-Channel and P-Channel Complementary MOSFET

Product Summary

NMOS

• V_{DS}	30V
• I_D	8A
• $R_{DS(ON)}$ (at $V_{GS}=10V$)	19m Ω
• $R_{DS(ON)}$ (at $V_{GS}=4.5V$)	23m Ω

PMOS

• V_{DS}	-30V
• I_D	-5A
• $R_{DS(ON)}$ (at $V_{GS}=-10V$)	39m Ω
• $R_{DS(ON)}$ (at $V_{GS}=-4.5V$)	54m Ω

General Description

- Trench Power LV MOSFET technology
- Excellent package for heat dissipation
- H_{iq} ! 'k h
- - 6 ■ = ' 3/8" A A†

1

					Unit
Drain-source Voltage		V_{DS}	30	-30	V
Gate-source Voltage		V_{GS}	± 20	± 20	V
Drain Current	$T_A=25$	I_D	8	-5	A
	$T_A=100$		5	-8150	

--	--	--	--	--

■ Thermal resistance

Parameter		Symbol	NMOS		PMOS		Units
			Typ	Max	Typ	Max	
Thermal Resistance Junction-to-Ambient °C	Steady-State	$R_{\theta JA}$	80	-	90	-	/W

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUL	°
YJU08NP03AJ	F1	Q08NP03A	3000	30000	120000	7" reel



YJU08NP03AJ

■ PMOS Electrical Characteristics (T_J=25 unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Static Parameter						
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} = 0V, I _D =-250μA	-30	-	-	V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-30V, V _{GS} =0V V _{DS} =-30V, V	-	-	-1	μA



■ NMOS Typical Electrical and Thermal Characteristics Diagrams

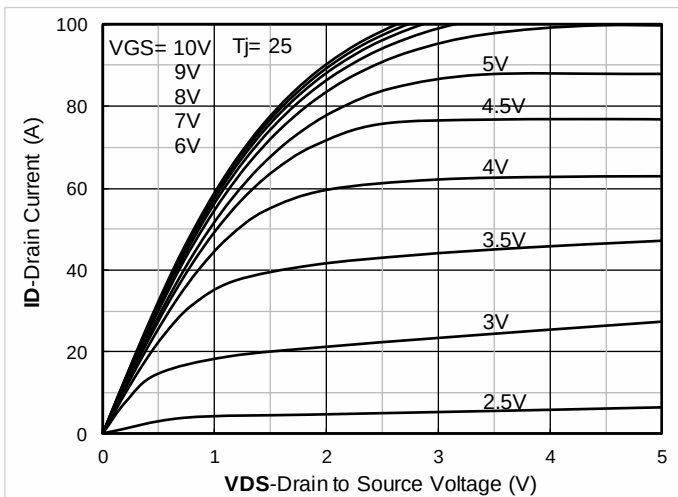


Figure 1. Output Characteristics

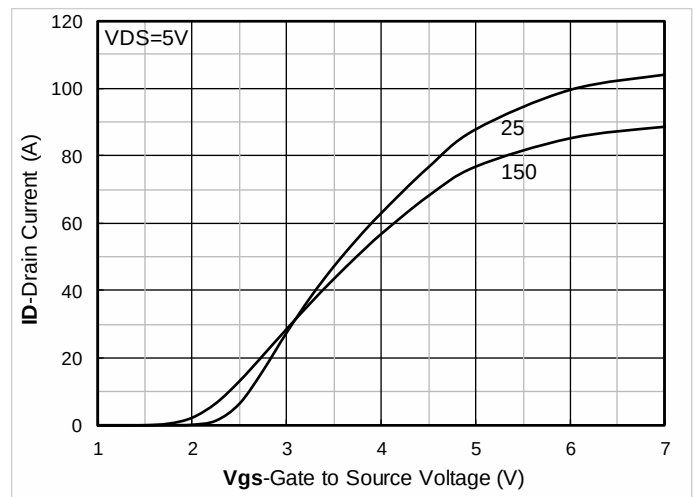


Figure 2. Transfer Characteristics

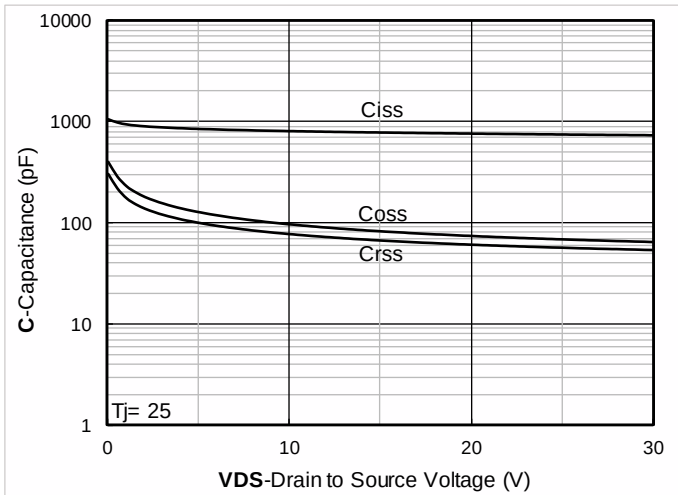


Figure 3. Capacitance Characteristics

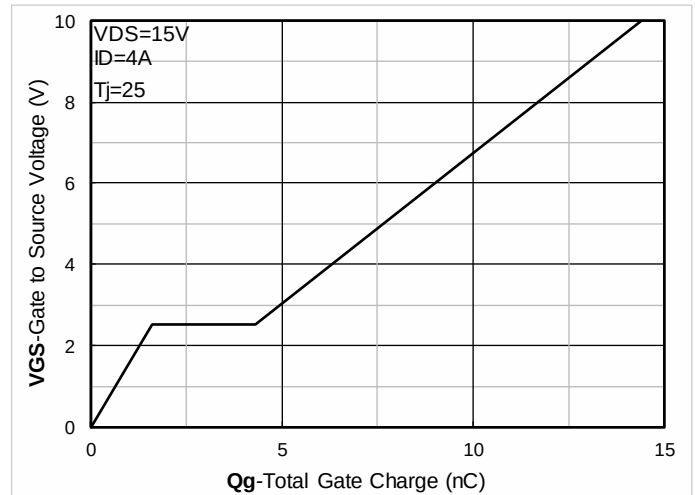


Figure 4. Gate Charge

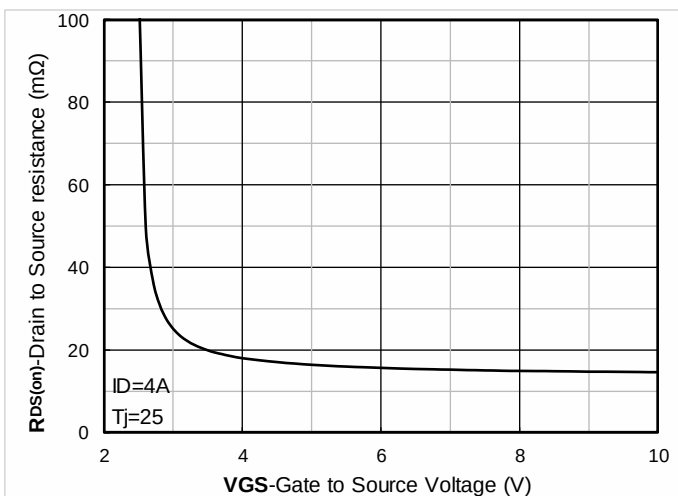


Figure 5. On-Resistance vs Gate to Source Voltage

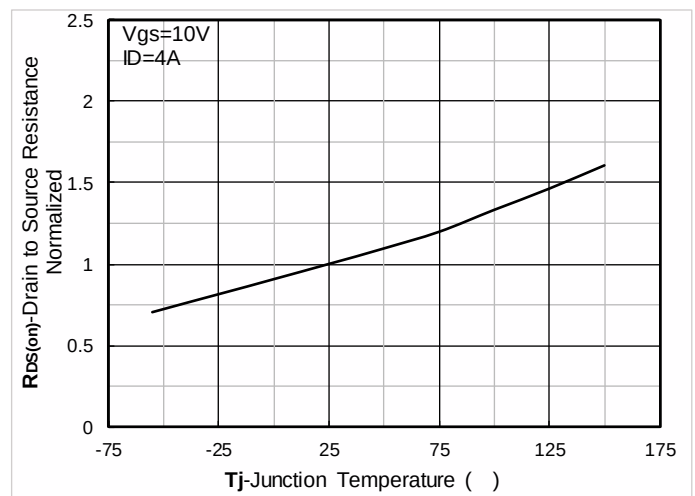


Figure 6. Normalized On-Resistance

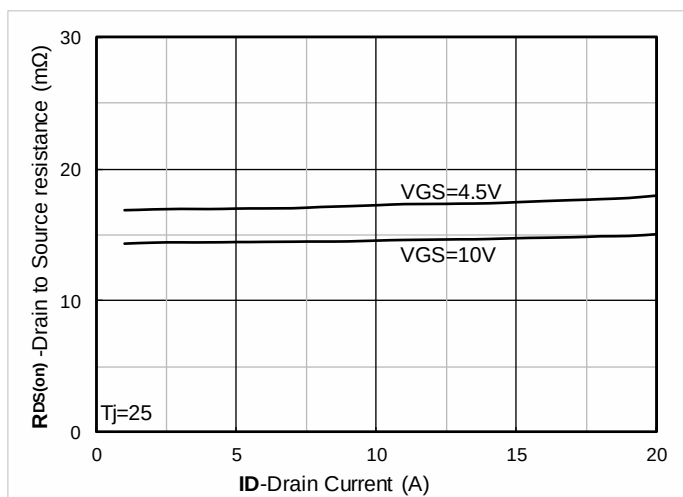


Figure 7. $R_{DS(on)}$ VS Drain Current

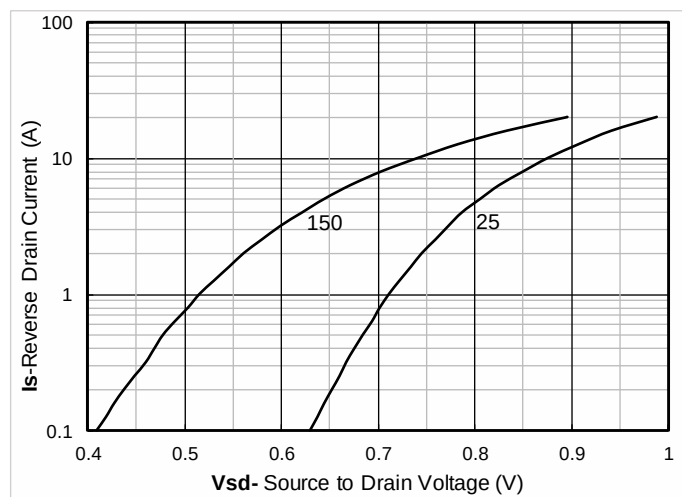
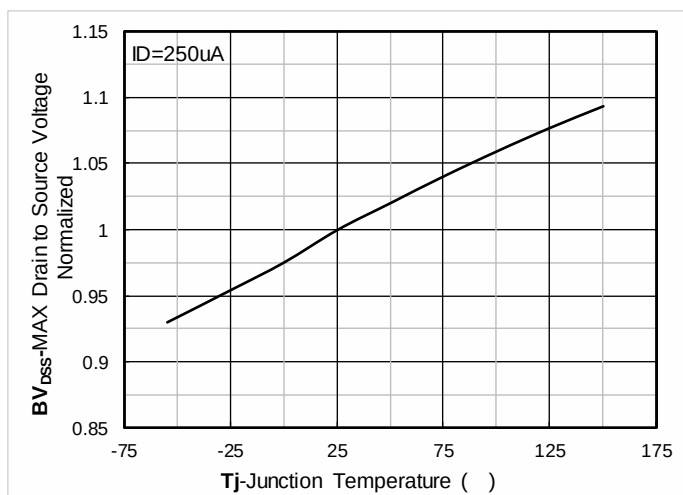
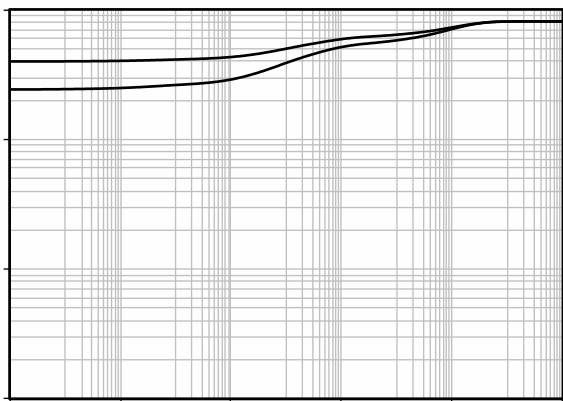


Figure 8. Forward characteristics of reverse diode





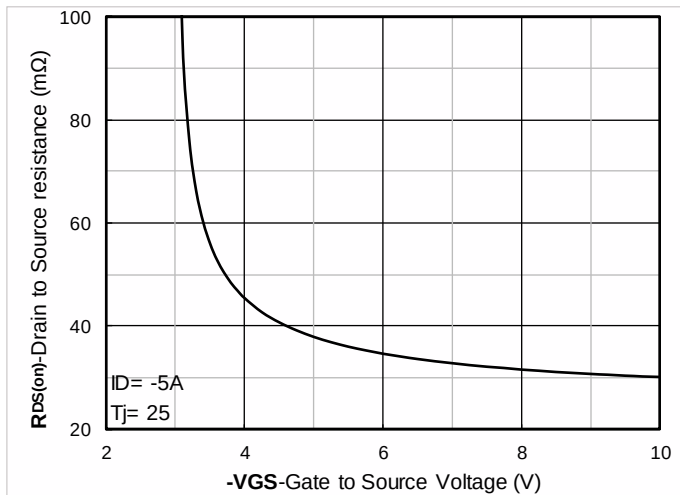


Figure 5. On-Resistance vs Gate to Source Voltage

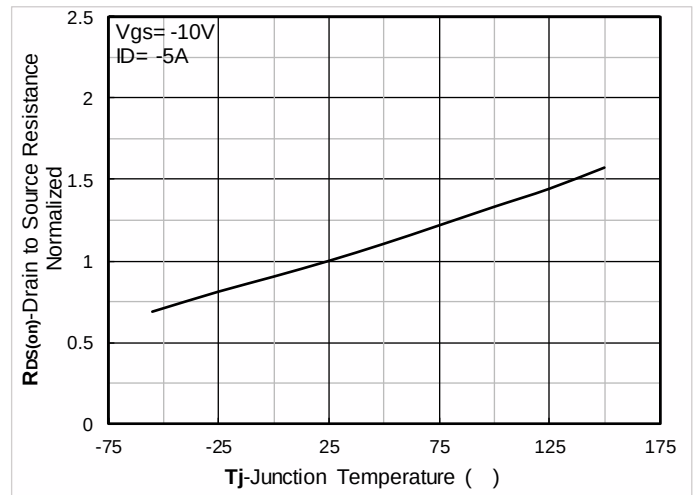


Figure 6. Normalized On-Resistance

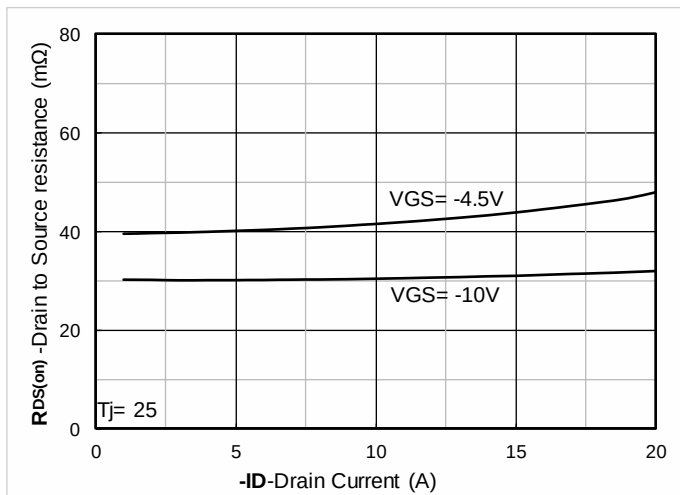


Figure 7. RDS(on) VS Drain Current

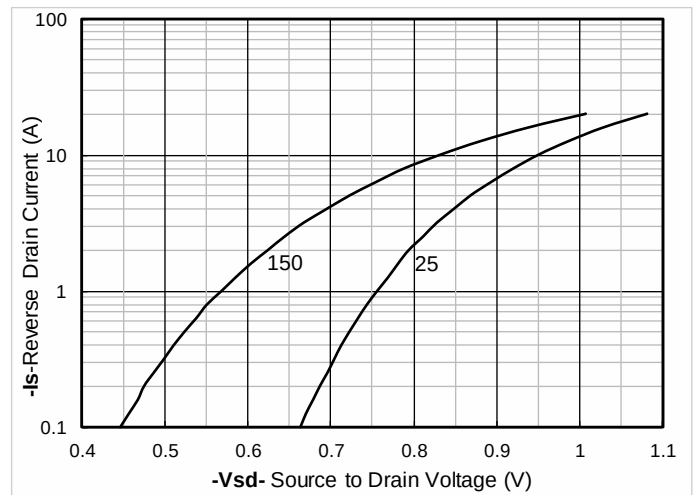
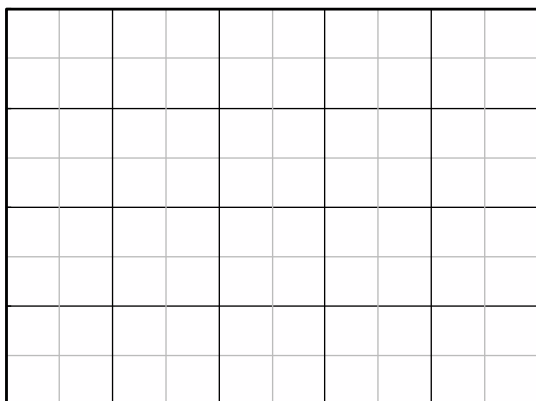
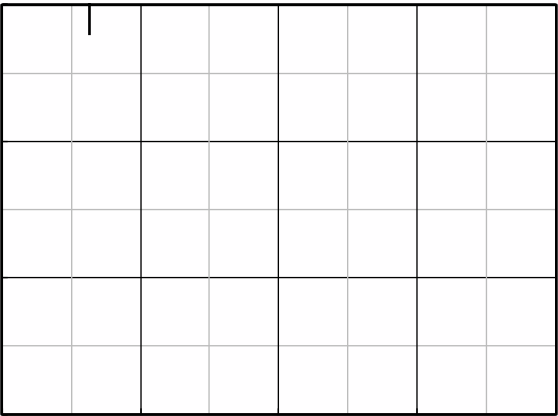
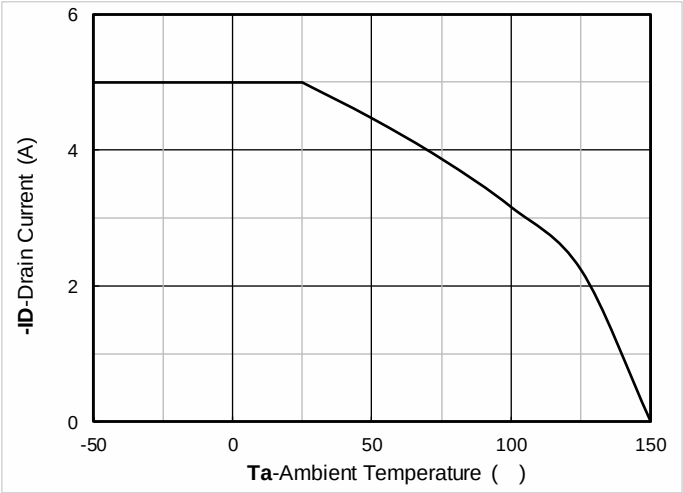


Figure 8. Forward characteristics of reverse diode







■ PDFN3030-8L Package information

		DIMENSIONS		
		INCHES		Millimeter
		SYMBOL	MIN. MAX	
TOP VIEW	SIDE VIEW	BOTTOM VIEW		
		UNIT	mm	
SUGGESTED SOLDER PAD LAYOUT		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.		



This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <http://www.21yangjie.com> , or consult