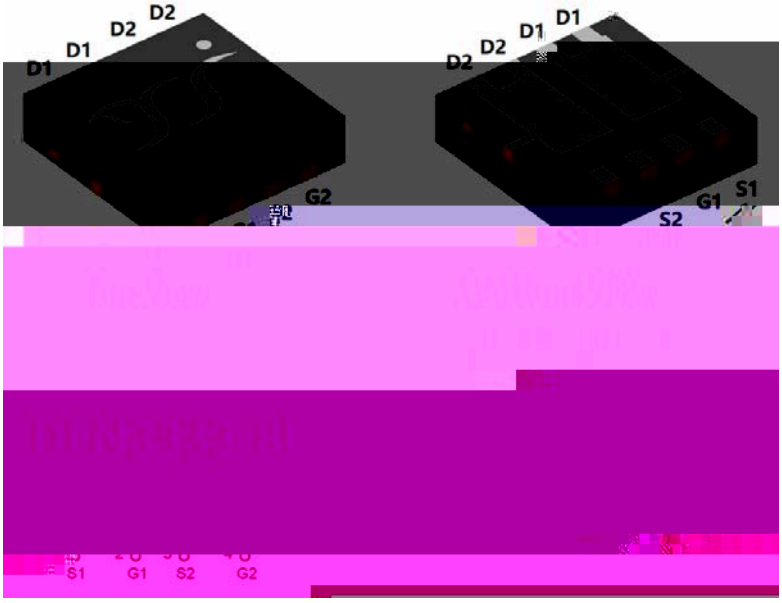
YJQ016NP04A

RoHS
COMPLIANT



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- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free

Applications

- Wireless charger
- Load switching
- Power management

■ Absolute Maximum Ratings (T_A=25 unless otherwise noted)

Parameter		Symbol	NMOS	PMOS	Unit
Drain-source Voltage		V_{DS}	40	-40	V
Gate-source Voltage		V_{GS}	±20	±20	V
Drain Current	T_A=25	I_D	7	-5	A
	T_A=100		4	-3	
	T_C=25		24	-18	
	T_C =100		15	-11	
Pulsed Drain Current [A]		I_{DM}	96	-72	A
Avalanche energy [B]		EAS	6.25	6.25	mJ
Total Power Dissipation [C]	T_A=25	P_D	1.6	1.6	W
	T_A=100		0.6	0.6	
	T_C=25		18.9	19.5	
	T_C =100		7.5	7.8	
Junction and Storage Temperature Range		T_J ,T_{STG}	-55 +150	-55 +150	

■Thermal resistance

Parameter		Symbol	NMOS		PMOS		Units
			Typ	Max	Typ	Max	
Thermal Resistance Junction-to-Ambient	Steady-State	$R_{\theta JA}$	60	75	60	75	/W
Thermal Resistance Junction-to-Case	Steady-State	$R_{\theta JC}$	5.5	6.6	5.3	6.4	

■ Ordering Information (Example)

PREFERED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJQ016NP04A	F1	Q016NP04A	5000	10000	100000	13'' reel

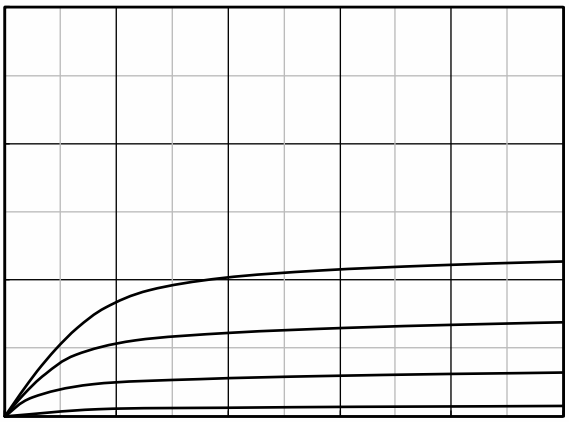
■ **NMOS Electrical Characteristics** (T_J=25 unless otherwise noted)

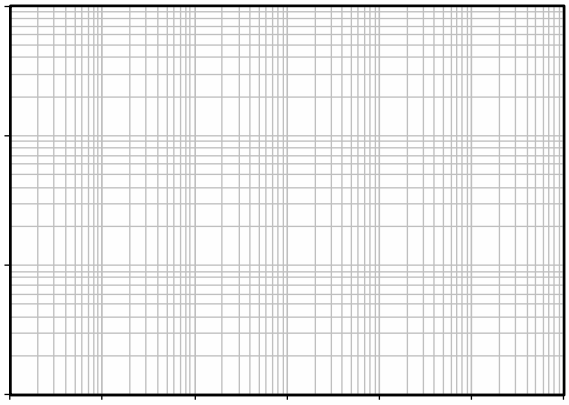
Parameter	Symbol	Conditions	Min	Typ	Max	Units
Static Parameter						

■ **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	-40	-	-	V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-40V, V_{GS}=0V	-	-	-1	μA
		V_{DS}=-40V, V_{GS}=0V, Tj=150	-	-	-100	

■ NMOS Typical Electrical and Thermal Characteristics Diagrams





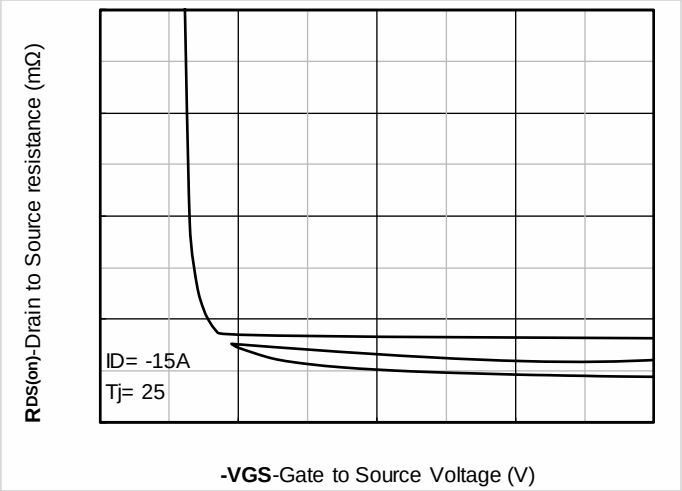


Figure 5. On-Resistance vs Gate to Source Voltage

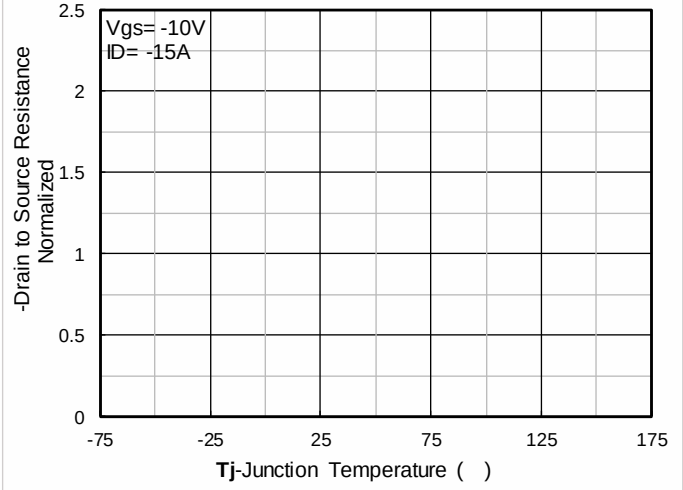
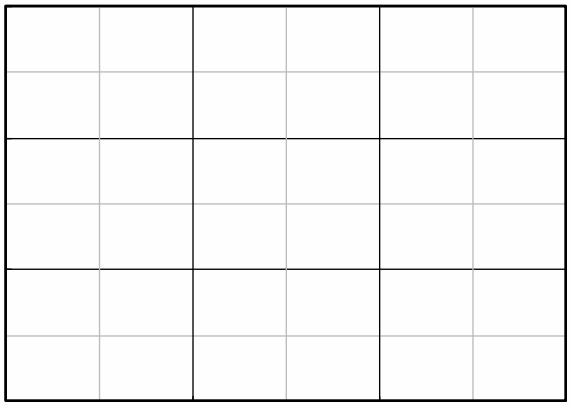
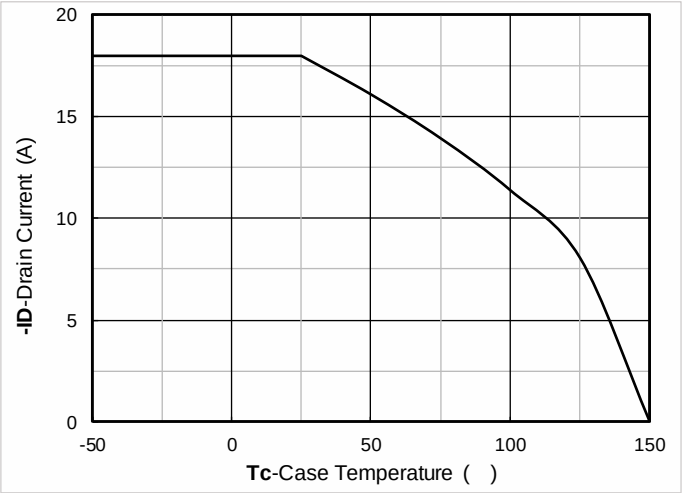
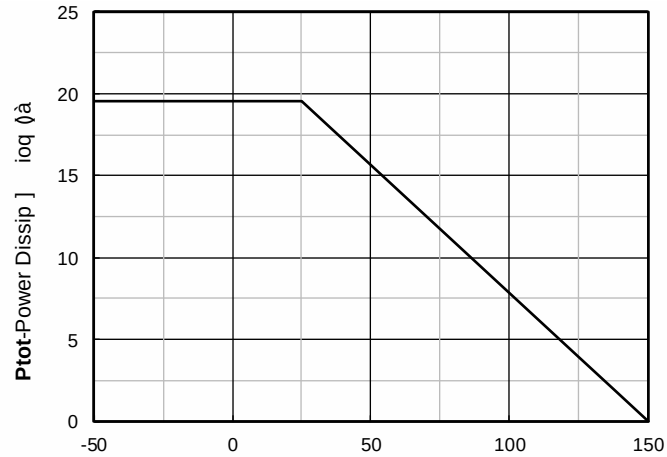


Figure 6. Normalized On-Resistance




20
15
10
5
0
-50
0
50
100
150
-ID-Drain Current (A)
Tc-Case Temperature ( )


25
20
15
10
5
0
-50
0
50
100
150
Ptot-Power Dissip] ioq ()à

■ DFN3333-8L-B-0.8MM Package information

Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.10mm.
3.The pad layout is for reference purposes only.

Suggested Solder Pad Layout

Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with