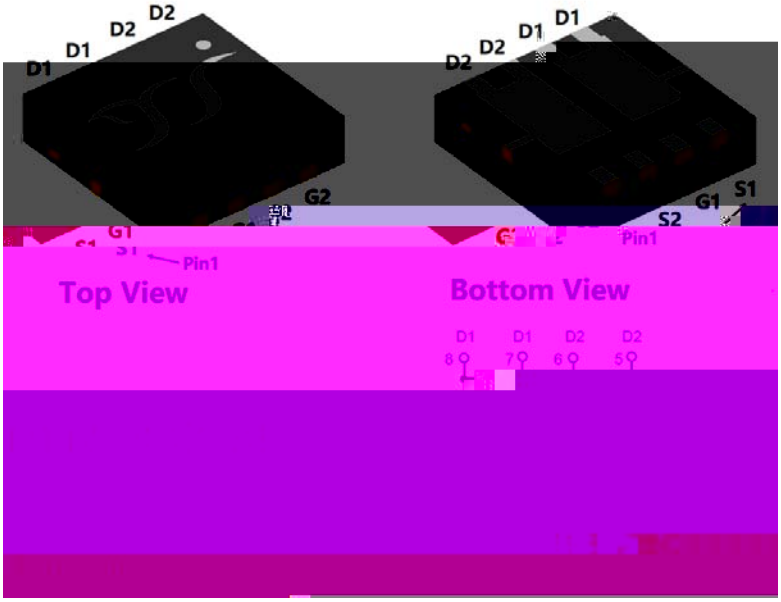
RoHS
COMPLIANT

YJQ016NP04A



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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

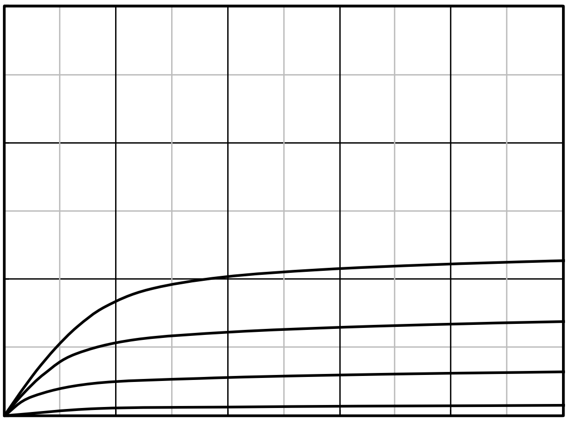
■ **NMOS Electrical Characteristics** (T_J=25 unless otherwise noted)

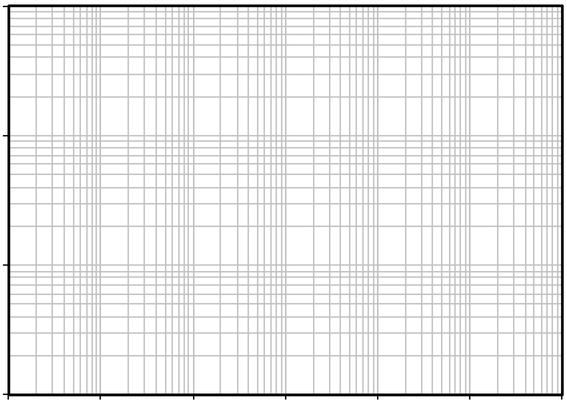
Parameter	Symbol	Conditions	Min	Typ	Max	Units
Static Parameter						

■ 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





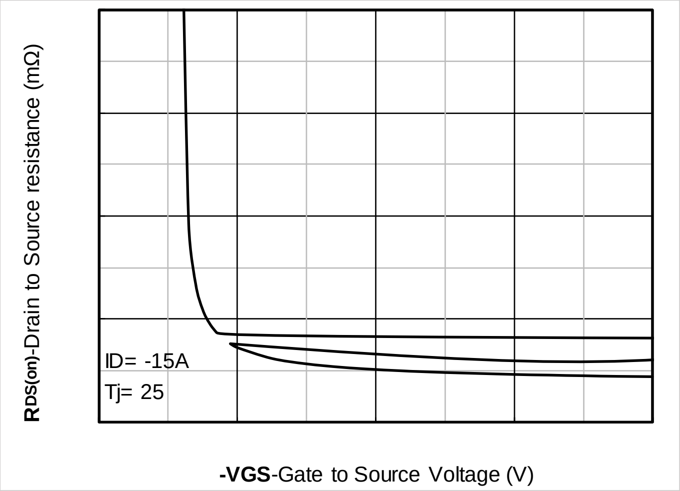


Figure 5. On-Resistance vs Gate to Source Voltage

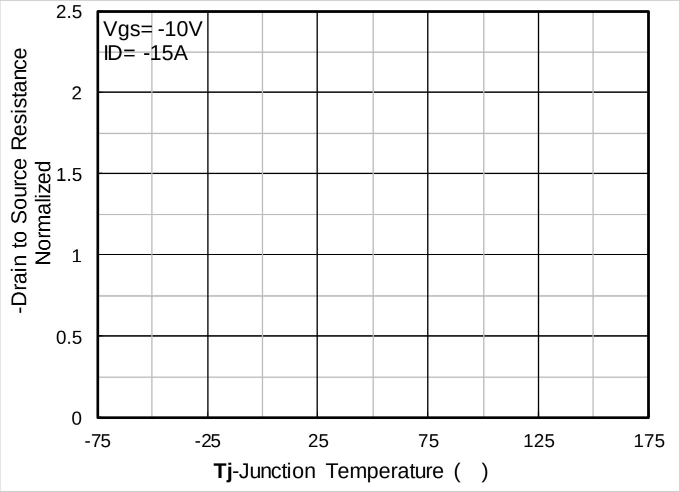
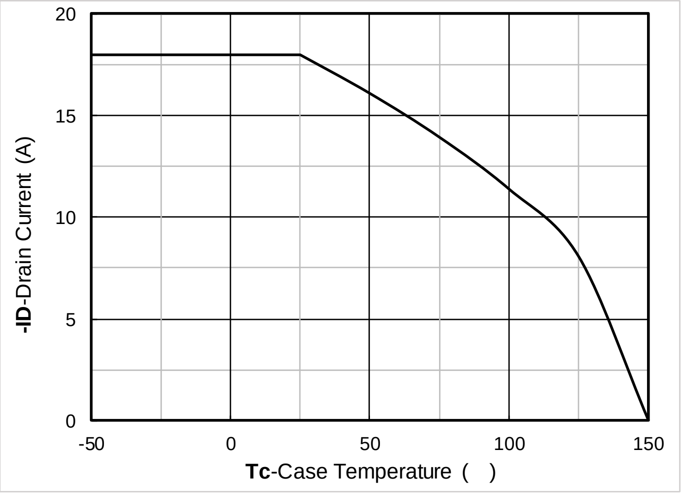
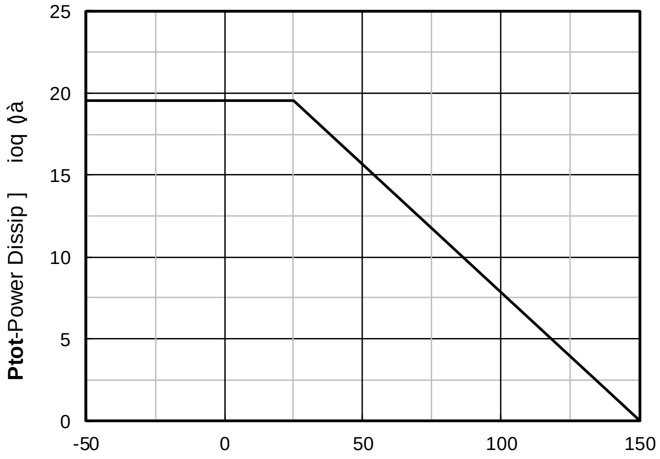


Figure 6. Normalized On-Resistance


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


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

■ 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

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