



YJP100GP06H

P-Channel Enhancement Mode Field Effect Transistor

Product Summary

V_{DS}	-60 V
I_D	-100 A
$R_{DS(ON)}$ (at $V_{GS}=-10V$)	<8.8m
$R_{DS(ON)}$ (at $V_{GS}=-6V$)	<10m
100% EAS Tested	
100% ∇V_{DS} Tested	

General Description

gate trench MOSFET technology
High density cell design for low $R_{DS(ON)}$
Excellent stability and uniformity
-0 Flammability Rating
Free

Applications

Absolute Maximum Ratings ($T_A=25^\circ C$ unless otherwise noted)

Parameter		Symbol	Limit	Unit
Drain-source Voltage		V_{DS}	-60	V
Gate-source Voltage		V_{GS}	± 18	V
Drain Current	$T_A=25^\circ C$	I_D	-15	A
	$T_A=100^\circ C$		-9.5	
	$T_C=25^\circ C$		-100	
			-63	
Pulsed Drain Current ^A		I_{DM}	-320	A
Avalanche energy ^B		EAS		



YJP100GP06H

Electrical Characteristics (T_J=25°C unless otherwise noted)

Parameter	Symbol	
-----------	--------	--



YJP100GP06H

Typical Electrical and Thermal Characteristics Diagrams

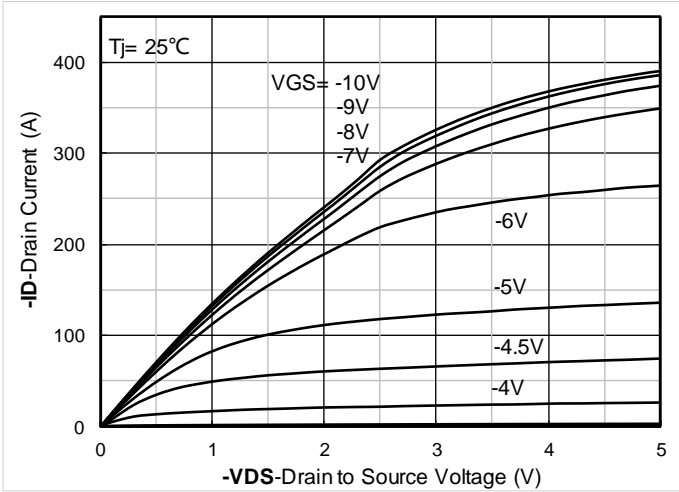


Figure 1. Output Characteristics

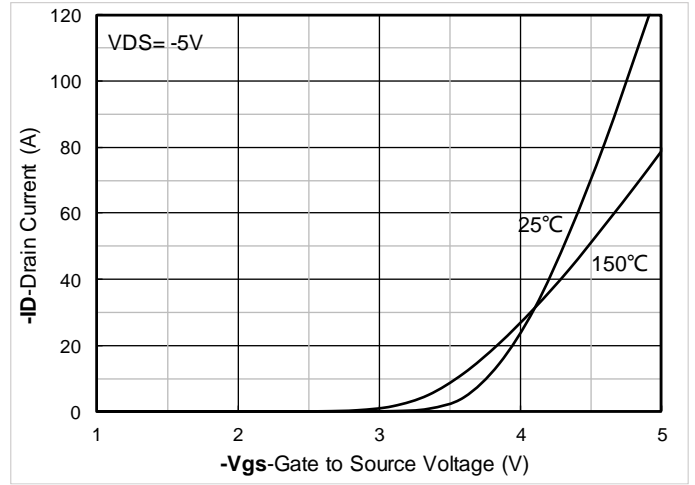


Figure 2. Transfer Characteristics

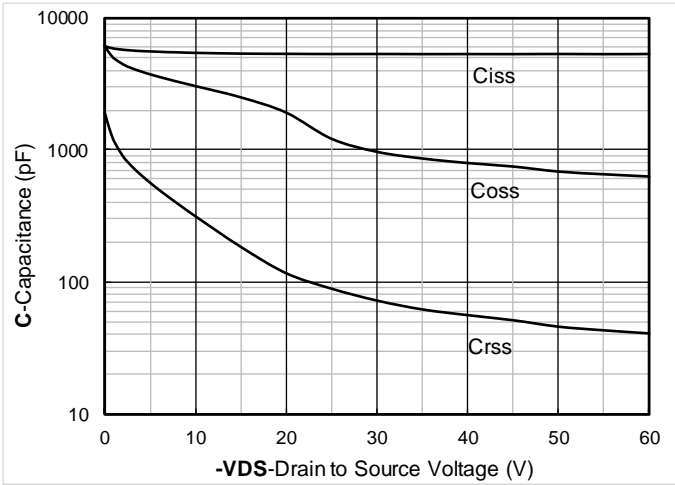


Figure 3. Capacitance Characteristics

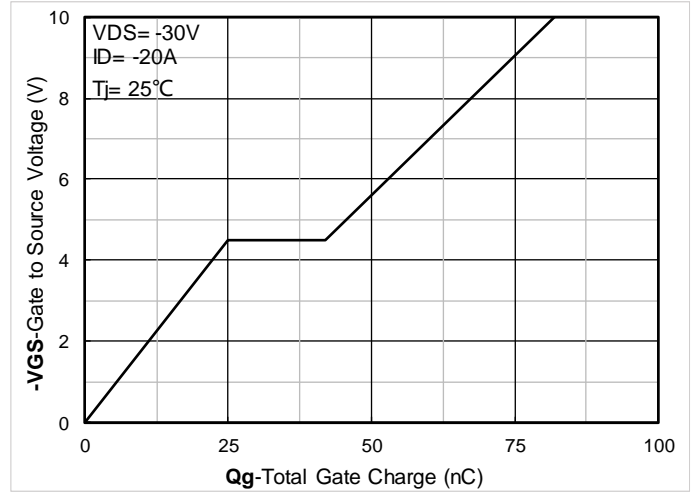


Figure 4. Gate Charge

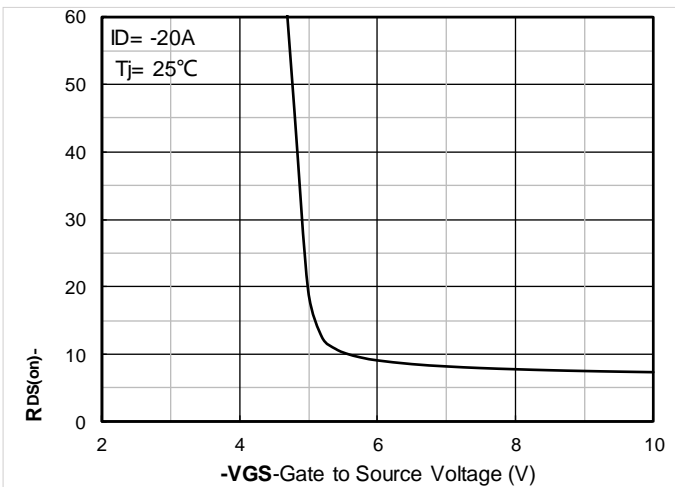


Figure 5. On-Resistance vs Gate to Source Voltage

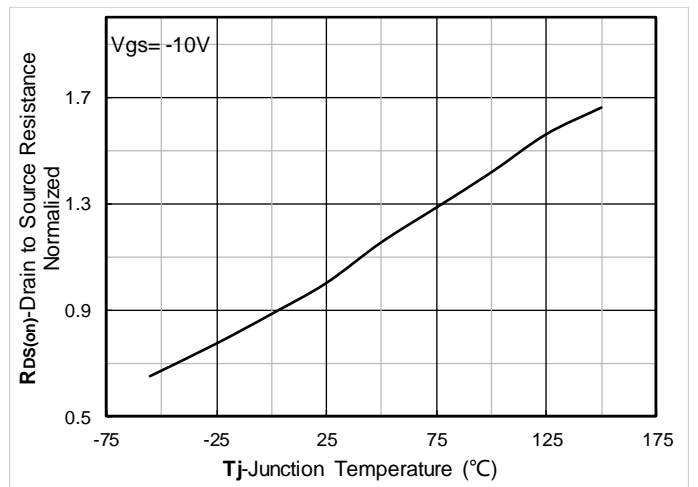


Figure 6. Normalized On-Resistance



YJP100GP06H

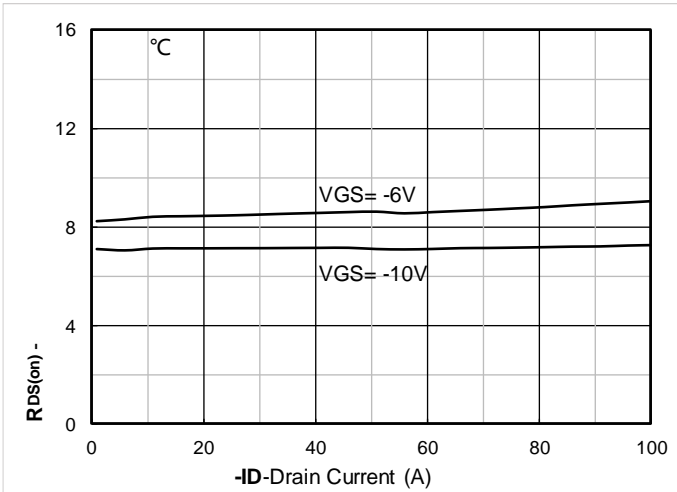


Figure 7. $R_{DS(on)}$ VS Drain Current

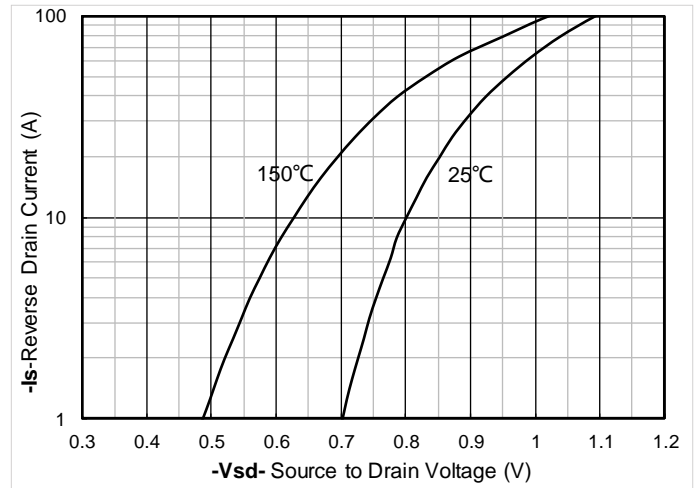


Figure 8. Forward characteristics of reverse diode

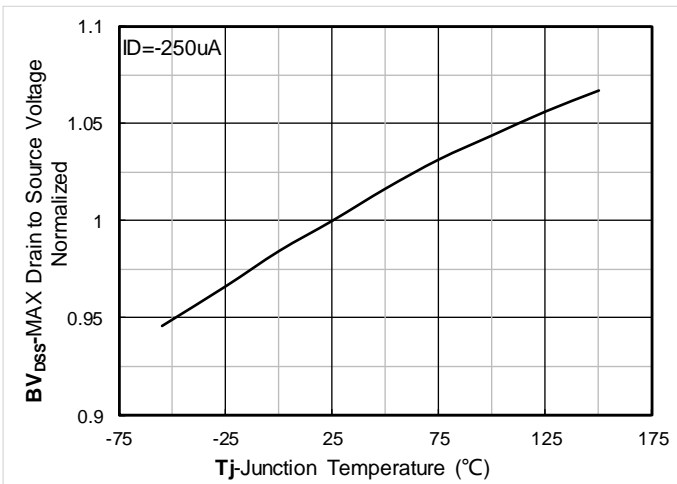


Figure 9. Normalized breakdown voltage

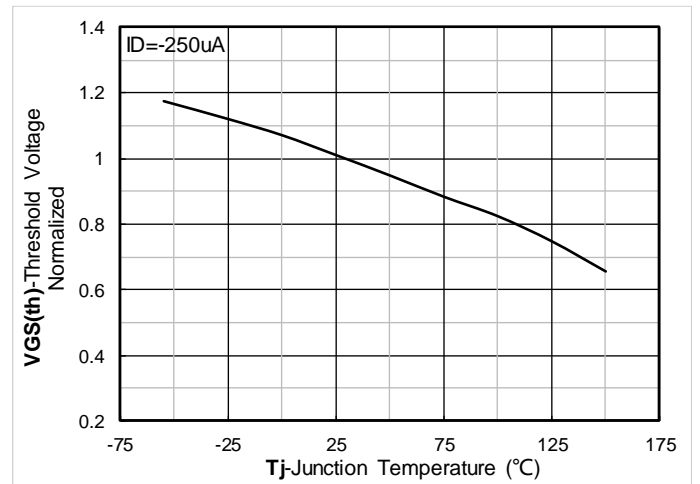


Figure 10. Normalized Threshold voltage

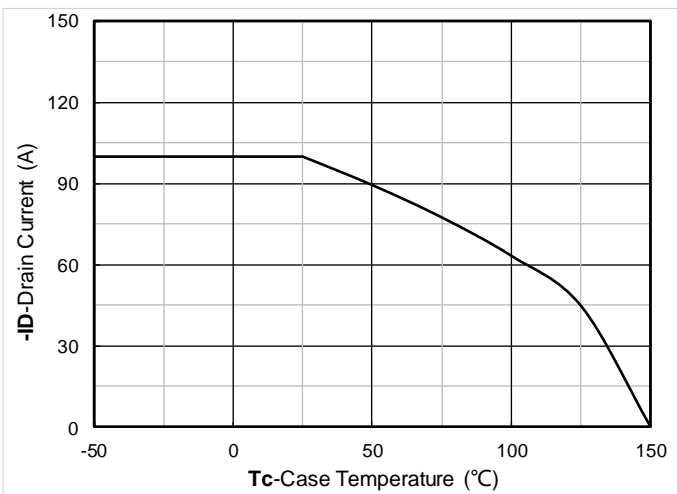


Figure 11. Current dissipation

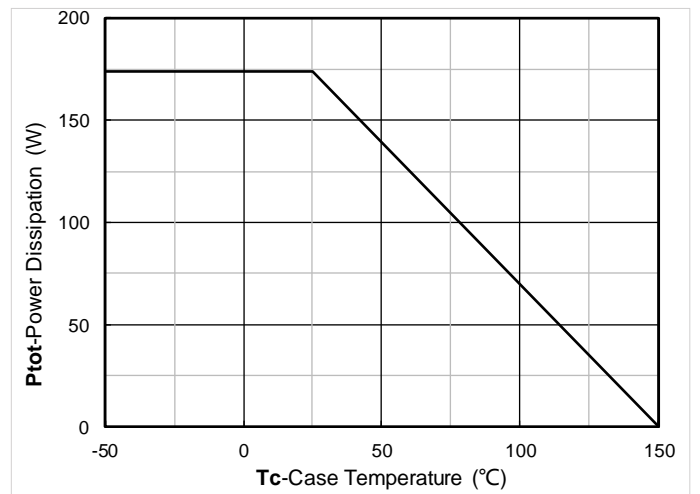


Figure 12. Power dissipation



YJP100GP06H

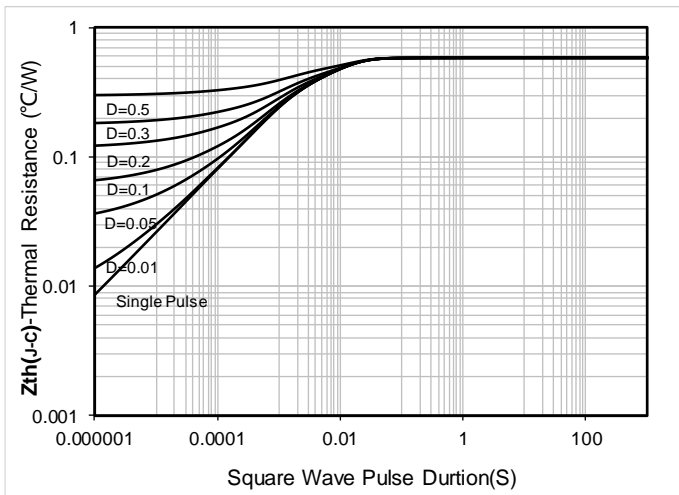


Figure 13. Maximum Transient Thermal Impedance

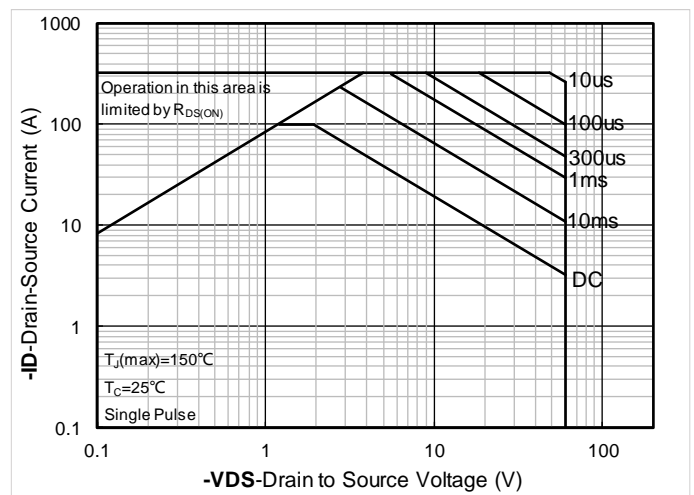
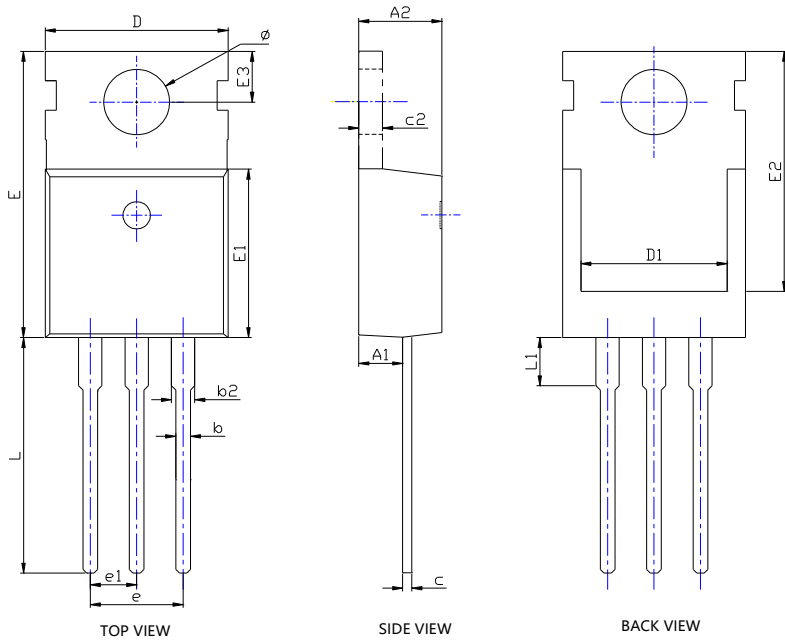


Figure 14. Safe Operation Area



YJP100GP06H

TO-220AB-D Package information



SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A1	0.091	0.098	2.300	2.500
A2	0.175	0.183	4.450	4.650
b	0.030	0.033	0.750	0.850
b2	0.048	0.052	1.220	1.320
c	0.018	0.022	0.450	0.550
c2	0.050	0.052	1.270	1.330
D	0.386	0.402	9.800	10.200
D1	0.303	0.327	7.700	8.300
E	0.614	0.630	15.600	16.000
E1	0.360	0.372	9.150	9.450
E2	0.510	0.533	12.950	13.550
E3	0.110BSC		2.800BSC	
e	0.200BSC		5.080BSC	
e1	0.100BSC		2.540BSC	
L	0.506	0.518	12.850	13.150
L1	0.093	0.117	2.360	2.960
ϕ	0.138	0.146	3.500	3.700

NOTE:
 1. PACKAGE BODY SIZES EXCLUDE MOLD FLASH AND GATE BURRS.
 2. TOLERANCE 0.1mm UNLESS OTHERWISE SPECIFIED.



YJP100GP06H

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 equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <http://www.21yangjie.com> or contact our sales office for further assistance.