



# YJD40P03B

## P-Channel Enhancement Mode Field Effect Transistor

### Product Summary

$V_{DS}$	-30 V
$I_D$	-40 A
$R_{DS(ON)}$ ( at $V_{GS}=-10V$ )	14 m
$R_{DS(ON)}$ ( at $V_{GS}=-4.5V$ )	22 m
100% EAS Tested	
100% $V_{DS}$ Tested	

### General Description

Trench Power LV MOSFET technology  
High density cell design for Low  $R_{DS(ON)}$   
High Speed switching

1

reW\*nBT/F5 5.52 T TJETQq0.000008882 0 596.04 842.04 reW\*nBT/F5



# YJD40P03B

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

Parameter	Symbol	Conditions	Min	Typ	Max	Units
<b>Static Parameter</b>						
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V, I_D=-$	-30	-	-	V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=-30V, V_{GS}=0V$	-	-	-1	
		$V_{DS}=-30V, V_{GS}=0V, T_J=150$	-	-	-100	
Gate-Body Leakage Current	$I_{GSS}$	$V_{GS}=\pm 20V, V_{DS}=0V$	-	-	$\pm 100$	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=-$	-1	-1.5	-2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=-10V, I_D=-20A$	-	10.5	14	
		$V_{GS}=-4.5V, I_D=-20A$	-	16	22	
Diode Forward Voltage	$V_{SD}$	$I_S=-20A, V_{GS}=0V$	-	-0.9	-1.3	V
Gate resistance	$R_G$	$f=1MHz$				



# YJD40P03B

## Typical Electrical and Thermal Characteristics Diagrams

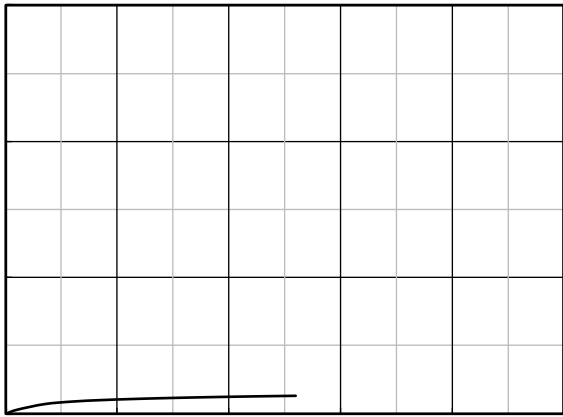


Figure 1. Output Characteristics

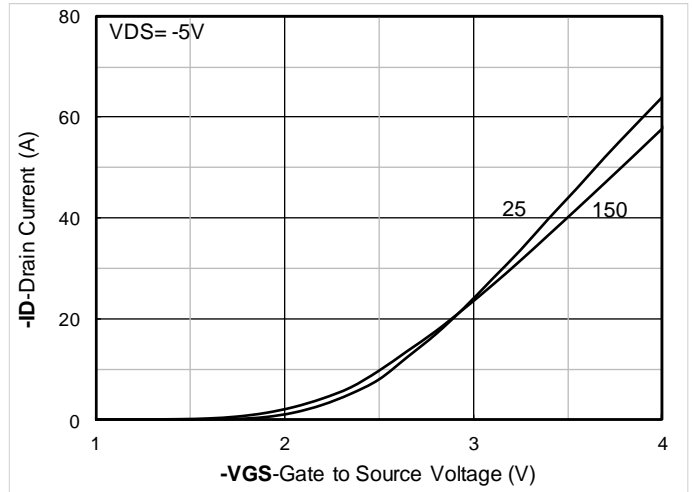


Figure 2. Transfer Characteristics

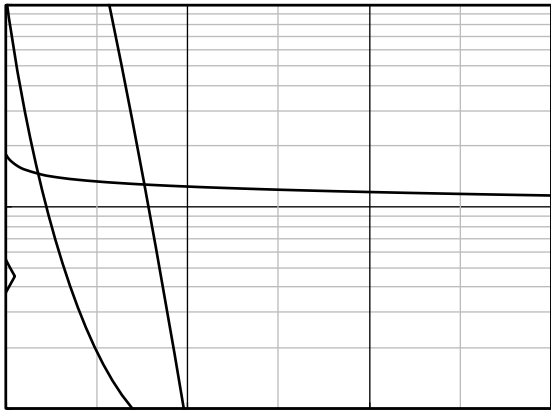


Figure 3. Capacitance Characteristics

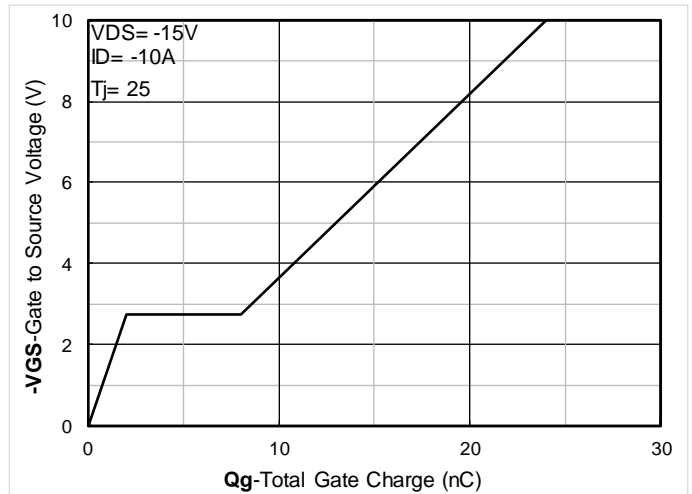


Figure 4. Gate Charge

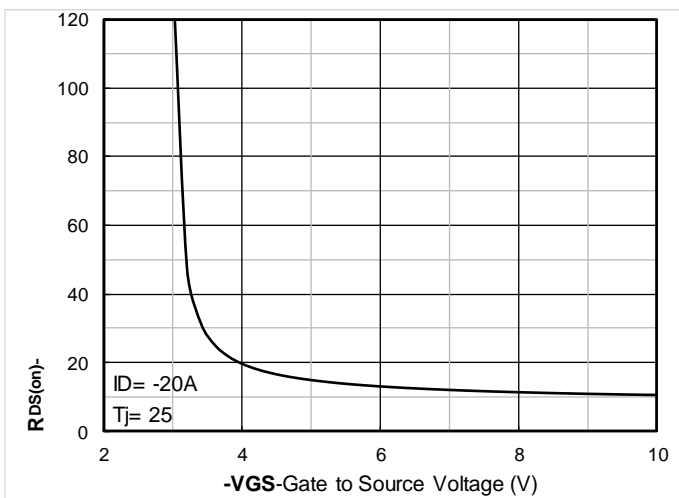


Figure 5. On-Resistance vs Gate to Source Voltage

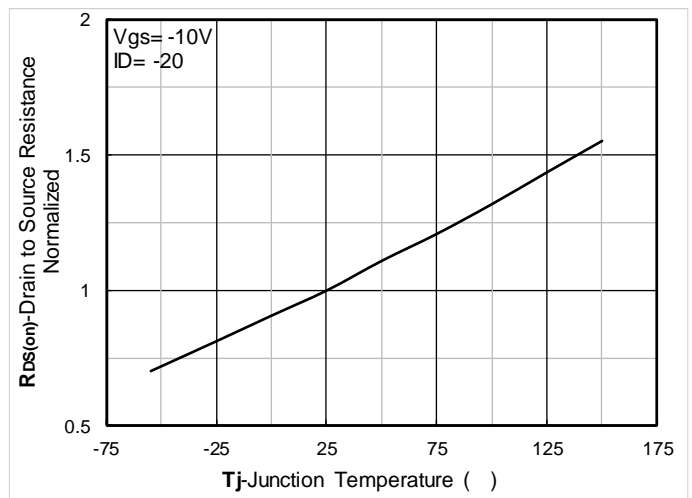


Figure 6. Normalized On-Resistance

**YJD40P03B**

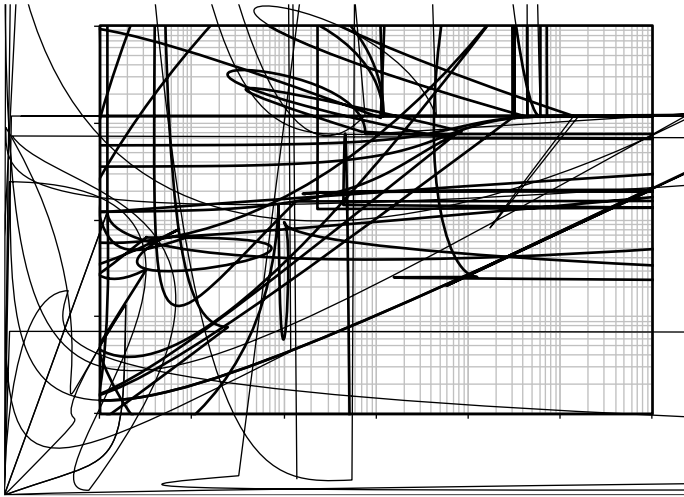


Figure 13. Maximum Transient Thermal Impedance

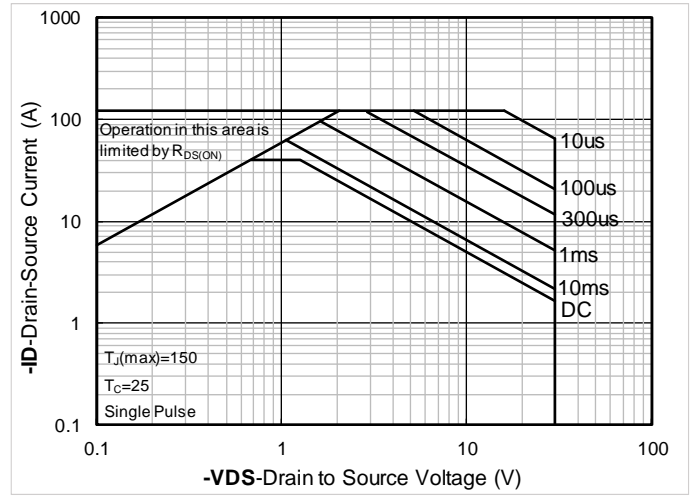


Figure 14.





## YJD40P03B

---

### 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 consult your nea