



# YJF70G10A

## N-Channel Enhancement Mode Field Effect Transistor

### Product Summary

$V_{DS}$	100V
$I_D$	70A
$R_{DS(ON)}$ (at $V_{GS}=10V$ )	5.5m
$R_{DS(ON)}$ (at $V_{GS}=4.5V$ )	6.5m
100% EAS Tested	
100% $V_{DS}$ Tested	

### General Description

Split gate trench MOSFET technology  
 Low  $R_{DS(on)}$  & FOM  
 Excellent stability and uniformity  
 Epoxy Meets UL 94 V-0 Flammability Rating  
 Halogen Free

### Applications

Power management  
 Portable equipment

### Absolute Maximum Ratings ( $T_A=25$ unless otherwise noted)

Parameter		Symbol	Limit	Units
Drain-source Voltage		$V_{DS}$	100	V
Gate-source Voltage		$V_{GS}$	$\pm 20$	V
Drain Current	$T_A=25$	$I_D$	15	A
	$T_A=100$		9.5	
	$T_C=25$		70	
	$T_C=100$		44	
Pulsed Drain Current <sup>A</sup>		$I_{DM}$	300	A
Avalanche energy <sup>B</sup>		EAS	306	mJ
Total Power Dissipation <sup>C</sup>	$T_A=25$	$P_D$	2.5	W
	$T_A=100$		1	
	$T_C=25$		62	
	$T_C=100$		25	
Junction and Storage Temperature Range		$T_J, T_{STG}$	-55 +150	

### Thermal resistance

Parameter		Symbol	Typ	Max	Units
Thermal Resistance Junction-to-Ambient <sup>D</sup>	Steady-State	$R_{JA}$	40	50	/W
Thermal Resistance Junction-to-Case	Steady-State	$R_{JC}$	1.6	2	

### Ordering Information (Example)

PREFERRED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJF70G10A	B1	YJF70G10A	50	/	5000	

**YJF70G10A**

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## Typical Electrical and Thermal Characteristics Diagrams

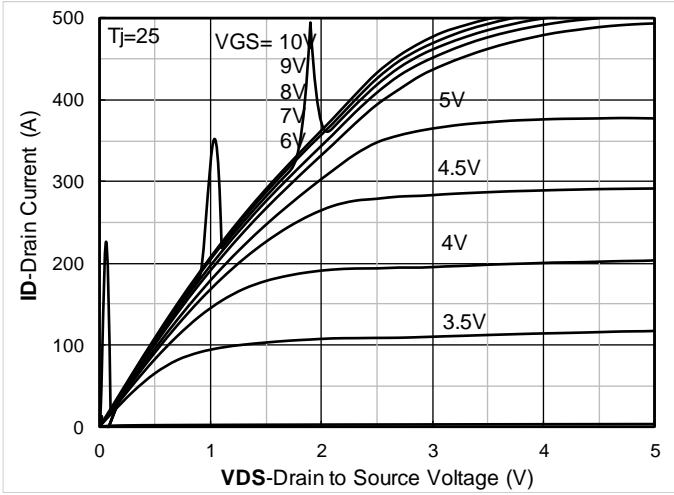


Figure 1. Output Characteristics

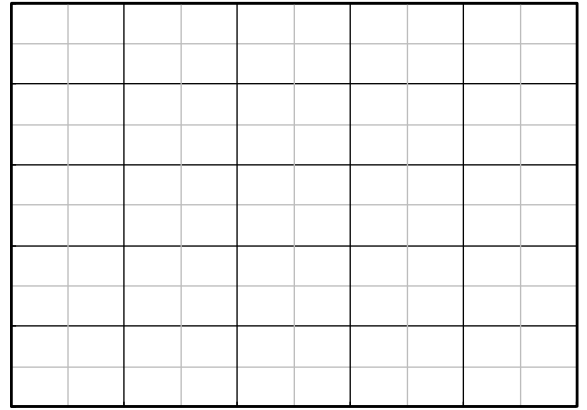


Figure 2. Transfer Characteristics

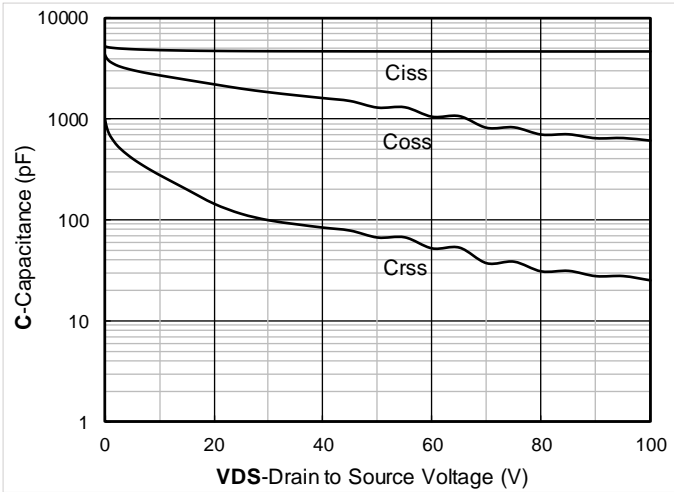


Figure 3. Capacitance Characteristics

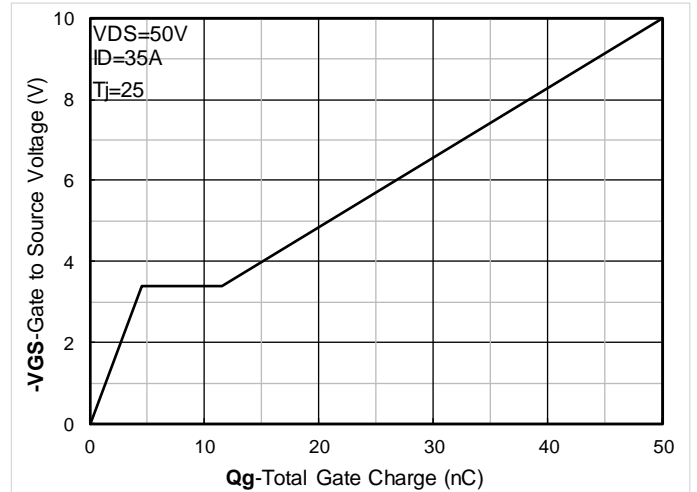


Figure 4. Gate Charge

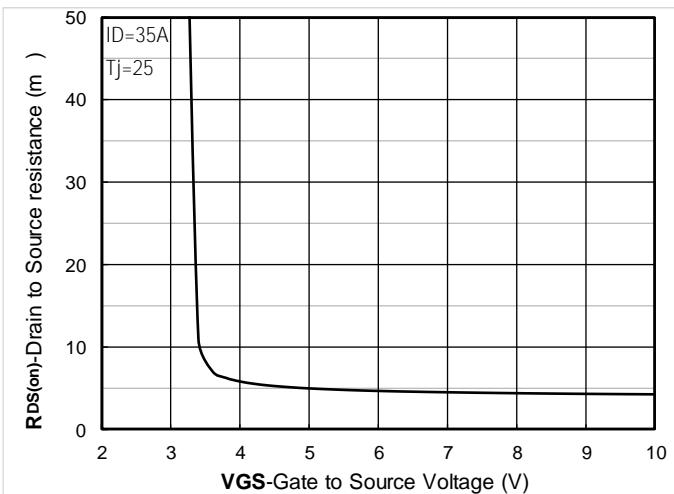


Figure 5. On-Resistance vs Gate to Source Voltage

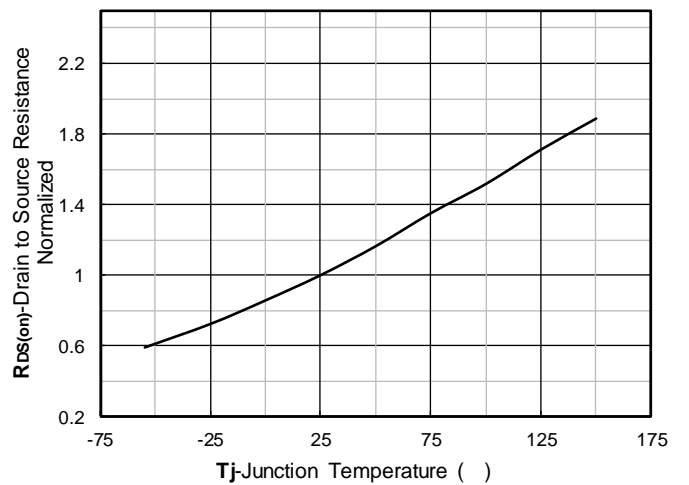


Figure 6. Normalized On-Resistance



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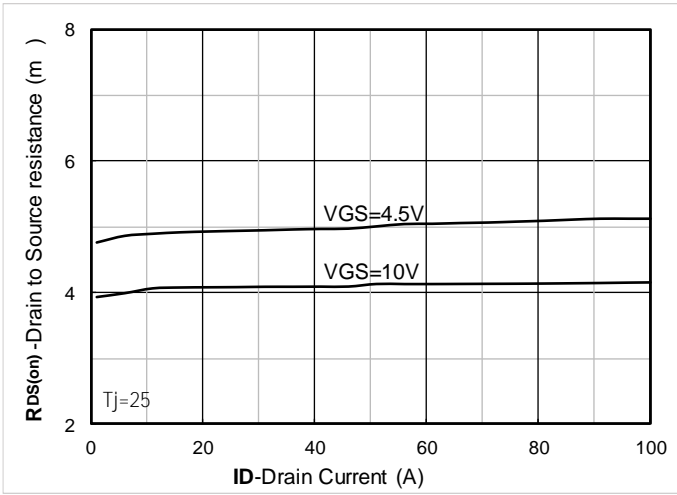


Figure 7. RDS(on) VS Drain Current

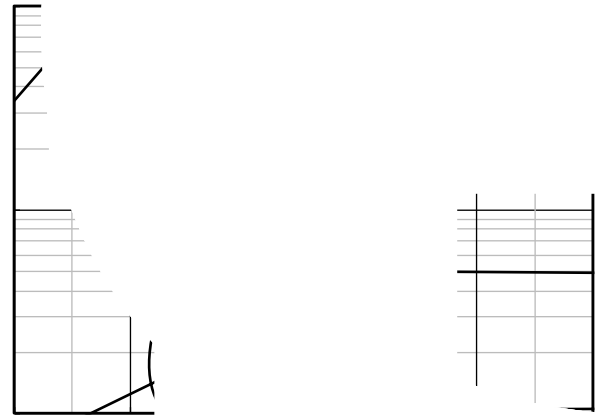


Figure 8. Forward characteristics of reverse diode

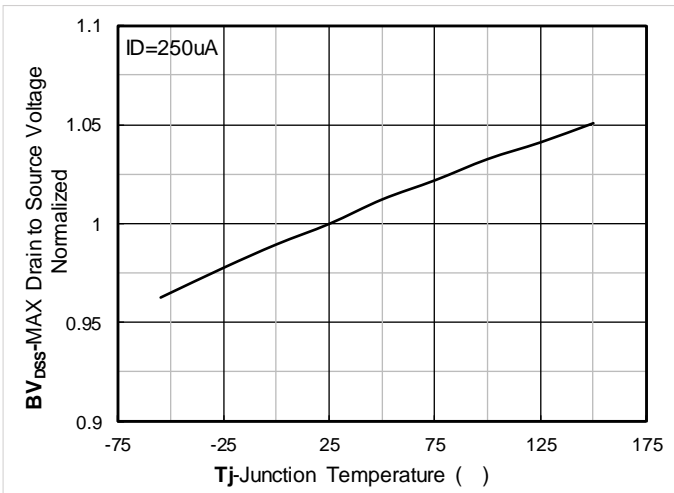


Figure 9. Normalized breakdown voltage

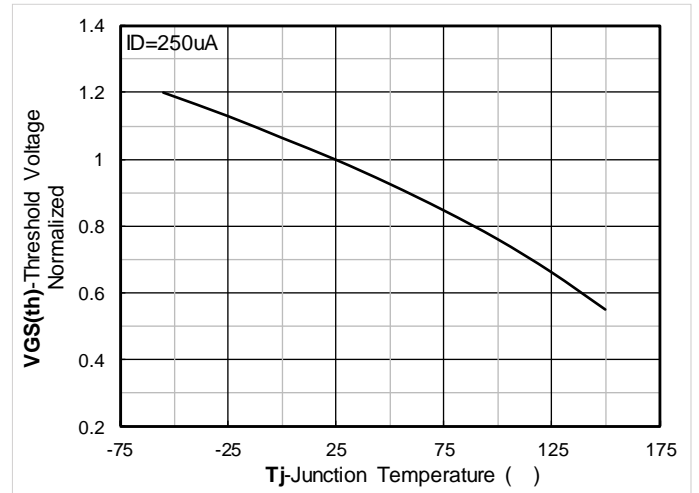


Figure 10. Normalized Threshold voltage

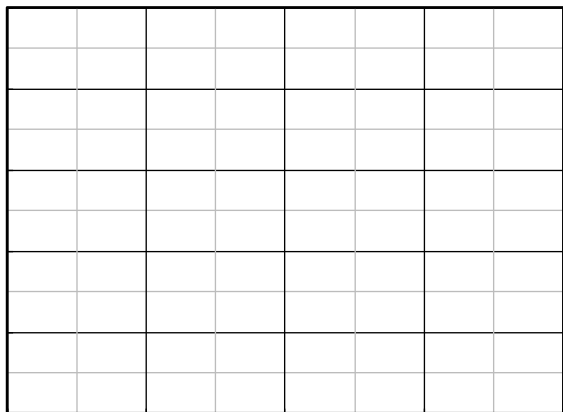


Figure 11. Current dissipation

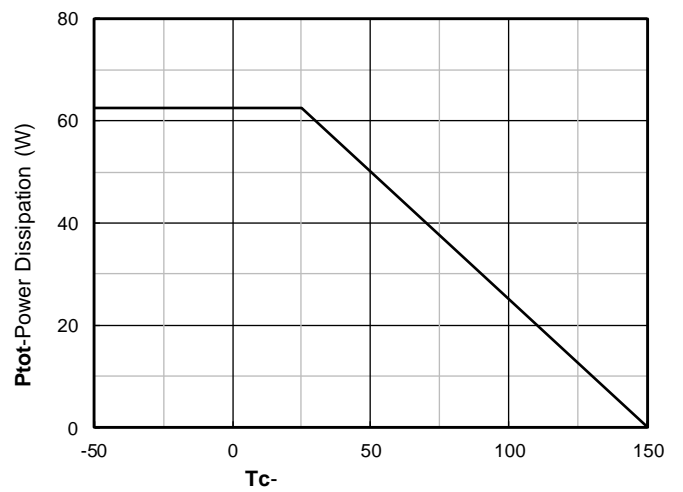


Figure 12. Power dissipation



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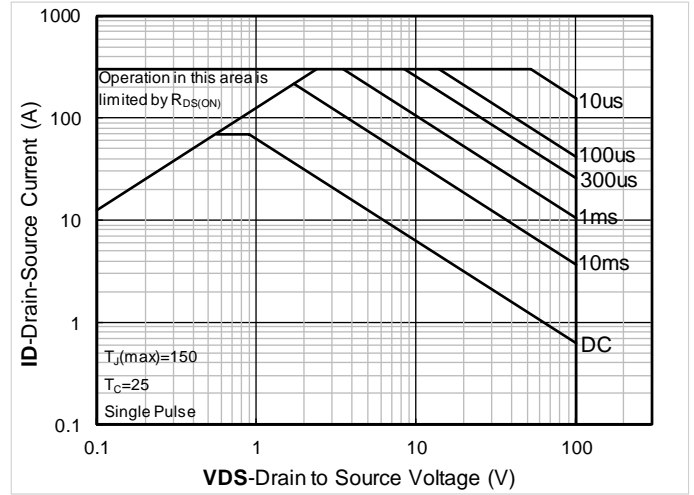


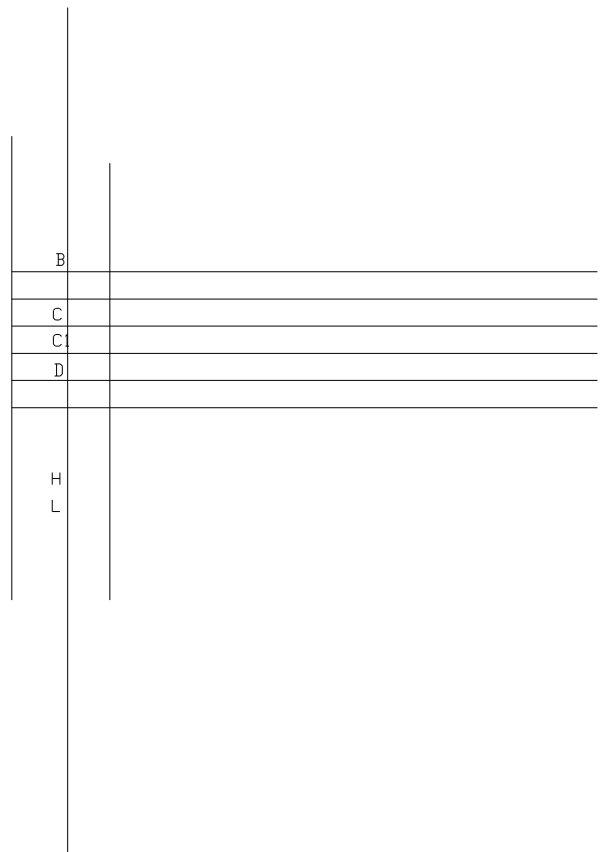
Figure 13. Maximum Transient Thermal Impedance

Figure 14. Safe Operation Area





ITO-220AB-B Package information





## 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 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-