



N-Channel Enhancement Mode Field Effect Transistor

Product Summary

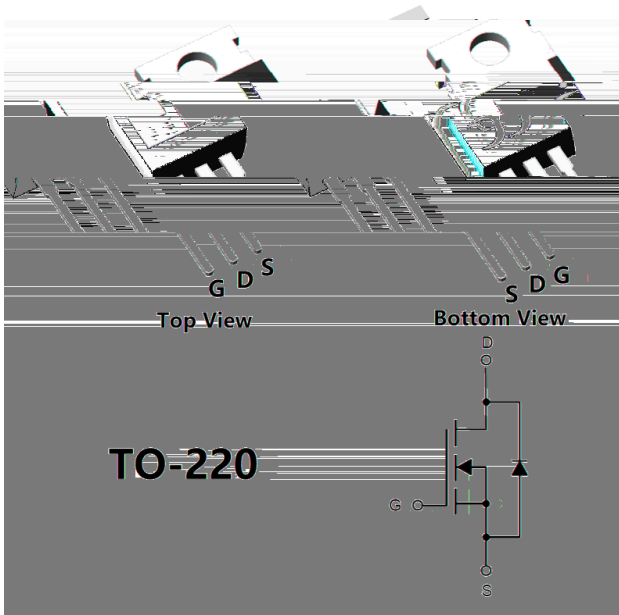
V_{DS}	100V
I_D	70A
$R_{DS(ON)}$ (at $V_{GS}=10V$)	8.6 mohm
$R_{DS(ON)}$ (at $V_{GS}=4.5V$)	11 mohm
100% EAS Tested	
100% V_{DS} Tested	

General Description

Low $R_{DS(on)}$ & FOM
 Extremely low switching loss
 Excellent stability and uniformity
 Fast switching and soft recovery
 Epoxy Meets UL 94 V-0 Flammability Rating
 Halogen Free

Applications

Power switching application
 Hard switched and high frequency circuits
 Uninterruptible power supply



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

Parameter	Symbol	Limit	Unit	
Drain-source Voltage	V_{DS}	100	V	
Gate-source Voltage	V_{GS}	20	V	
Drain Current	I_D	$T_C=25$	70	A
		$T_C=100$	44.2	
Pulsed Drain Current ^A	I_{DM}	280	A	
Avalanche energy ^B	EAS	200	mJ	
Total Power Dissipation ^C	P_D	$T_C=25$	125	W
		$T_C=100$	50	
Junction and Storage Temperature Range	T_J, T_{STG}	-55 +150		

Thermal resistance

Parameter	Symbol	Typ	Max	Units
Thermal Resistance Junction-to-Ambient ^D	R_{JA}	12	15	/W
Thermal Resistance Junction-to-Ambient ^D		Steady-State	50	
Thermal Resistance Junction-to-Case	R_{JC}	0.8	1.0	

Ordering Information (Example)

PREFERRED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJP70G10A	B1	YJP70G10A	50	/	5000	Tube



YJP70G10A

Electrical Characteristics ($T_j=25$ unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Units



Typical Performance Characteristics

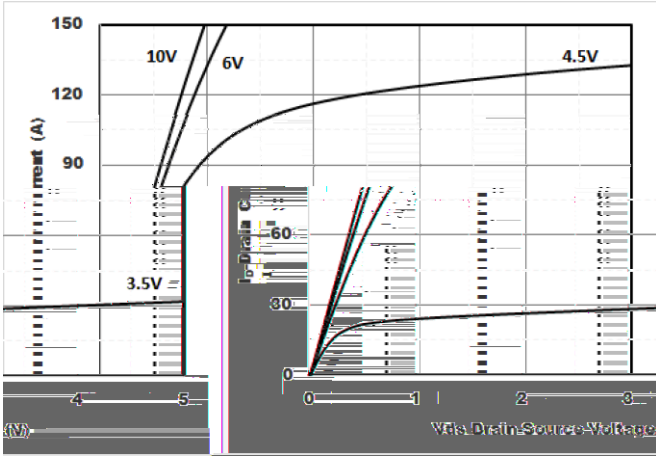


Figure1. Output Characteristics

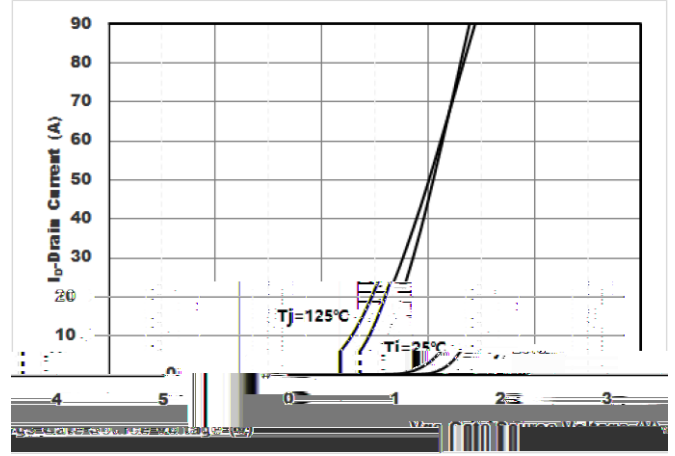


Figure2. Transfer Characteristics

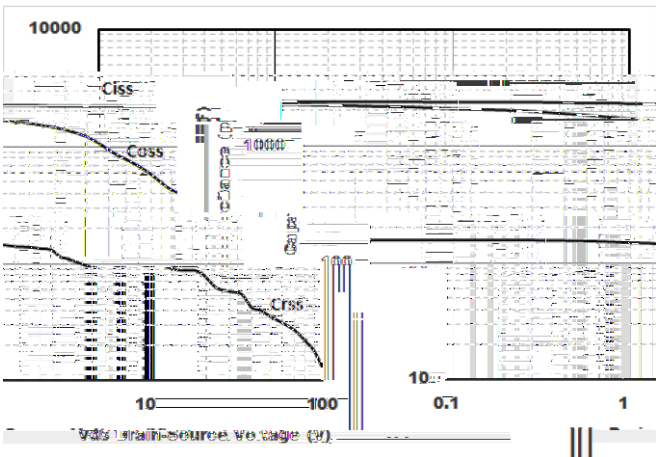


Figure3. Capacitance Characteristics

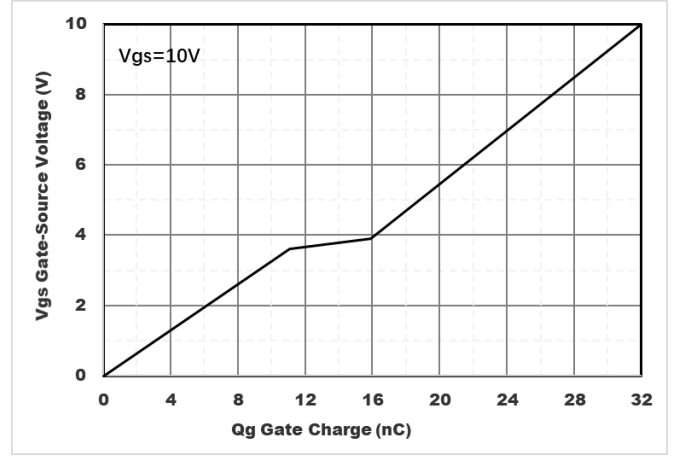


Figure4. Gate Charge

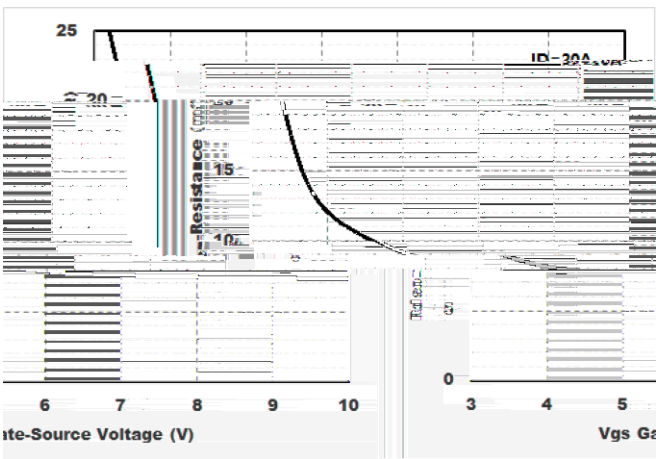


Figure5. On-Resistance vs. Drain Current and Gate Voltage

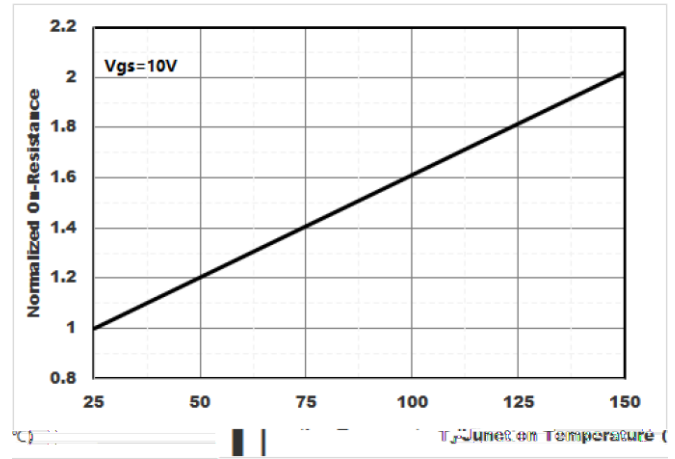


Figure6. Normalized On-Resistance



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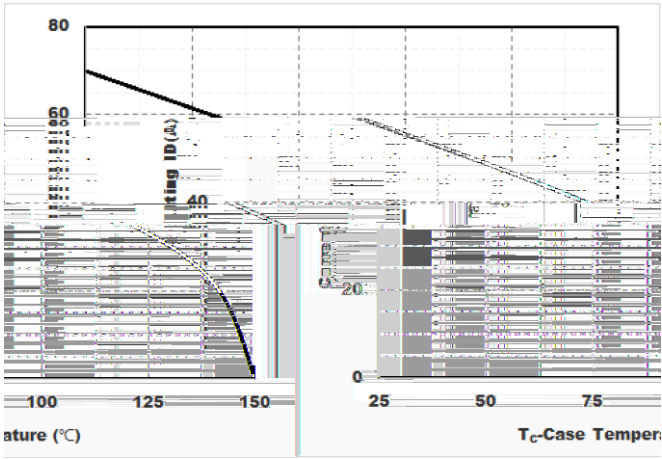


Figure7. Drain current

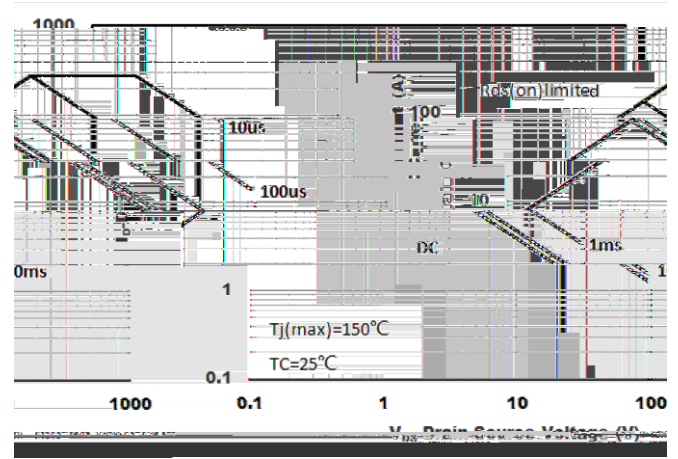


Figure8. Safe Operation Area

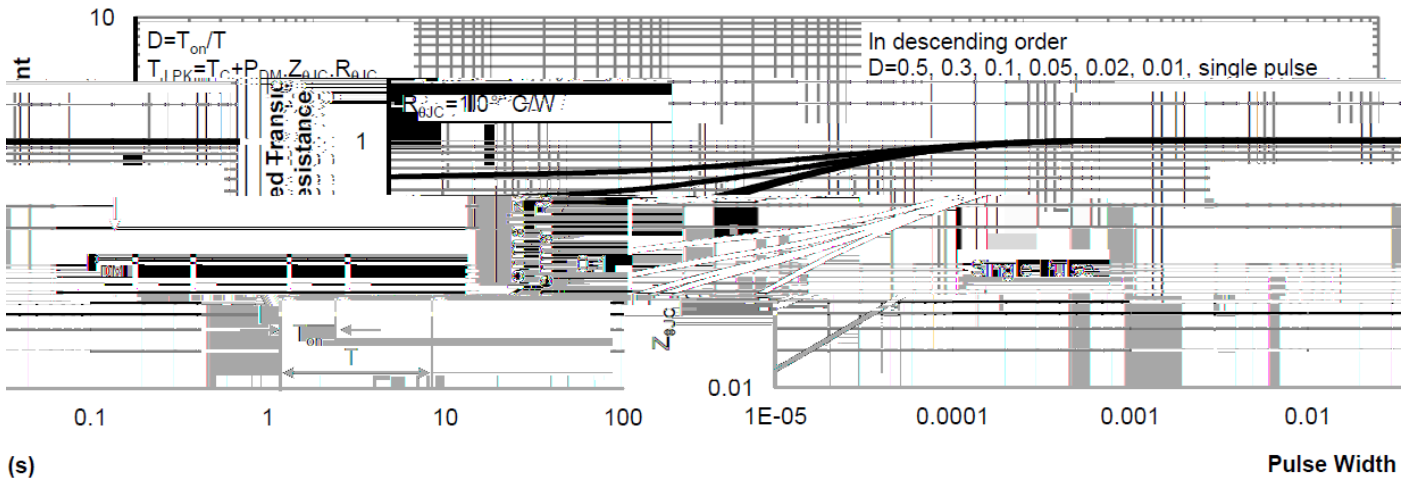


Figure9. Normalized Maximum Transient thermal impedance



TO-220AB-C Package information

NOTE:

SIDE VIEW



YJP70G10A

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