



YJB70G10B

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 $V_{GS}=6V$)	13 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
Moisture Sensitivity Level 1
-0 Flammability Rating
alogen Free

Applications

Power switching application
Hard switched and high frequency circuits
UPS

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

Parameter



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

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Static Parameter						
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V, I_D=250$	100			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=100V, V_{GS}=0V$			1	
		$V_{DS}=100V, V_{GS}=0V, T_J=150$			100	
Gate-Body Leakage Current	I_{GSS}	$V_{GS}=20V, V_{DS}=0V$			100	nA



Typical Performance Characteristics

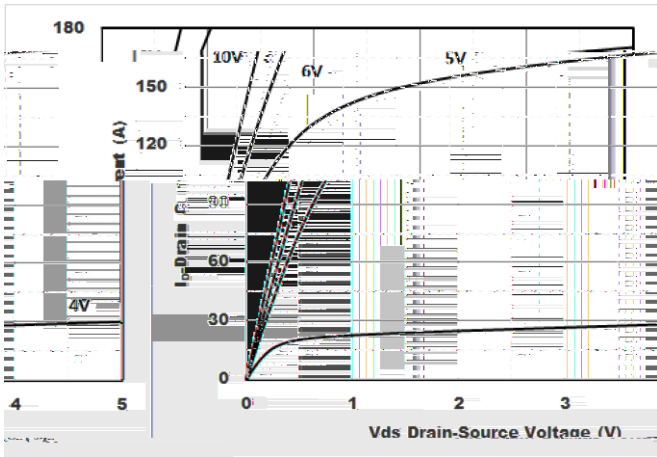


Figure1. Output Characteristics

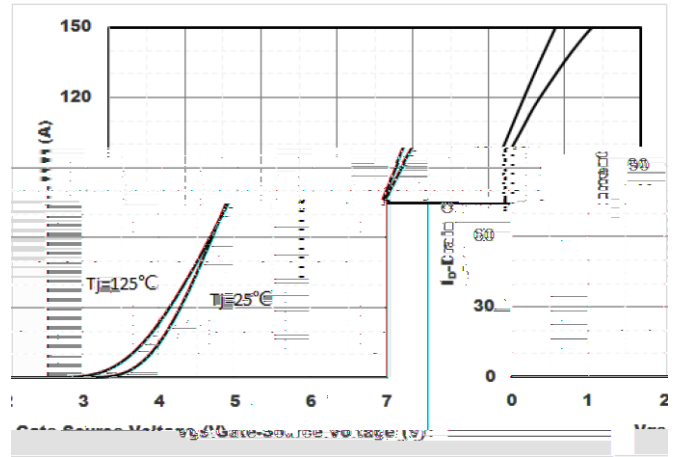


Figure2. Transfer Characteristics

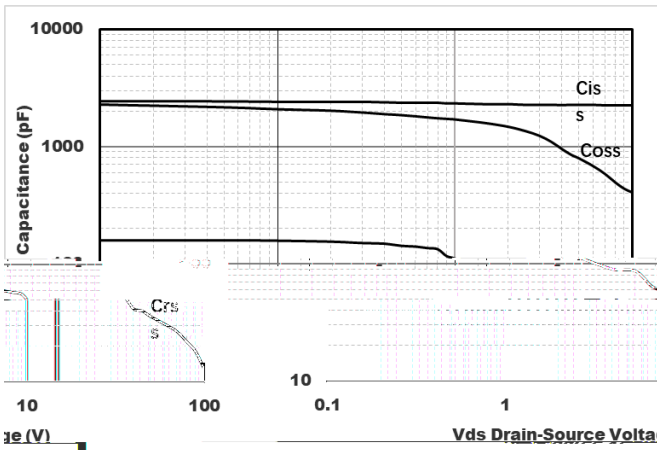


Figure3. Capacitance Characteristics

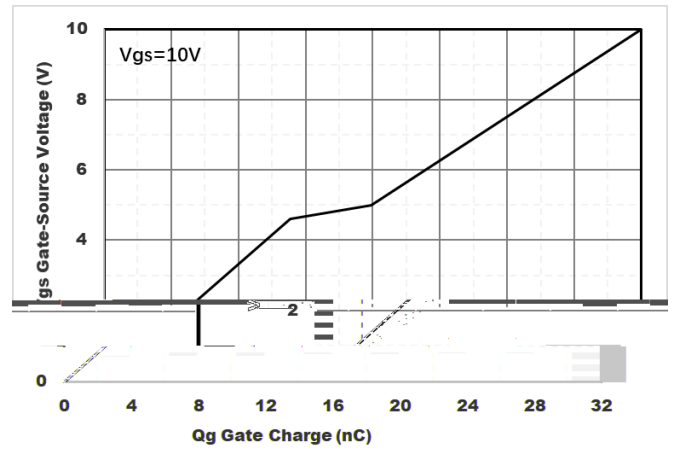


Figure4. Gate Charge

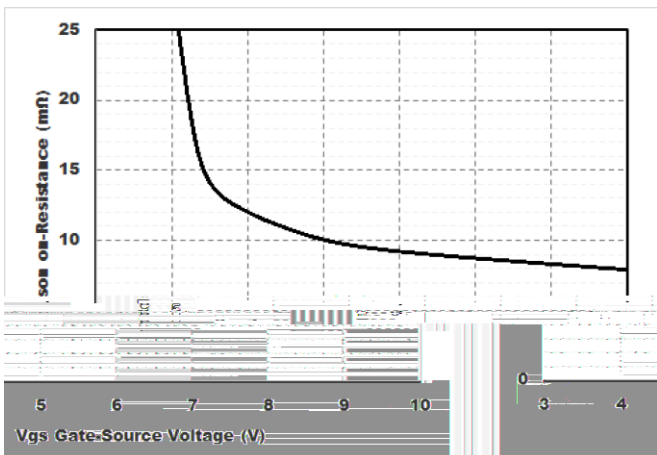


Figure5. : On-Resistance vs. Drain Current and Gate Voltage

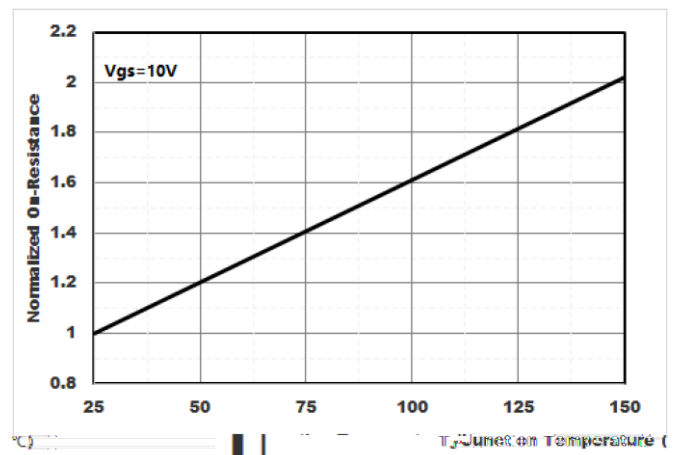


Figure6. Normalized On-Resistance



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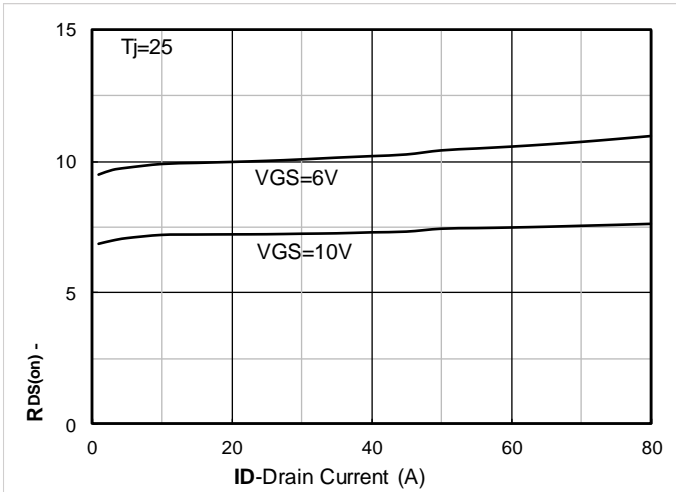


Figure 7. RDS(on) VS Drain Current

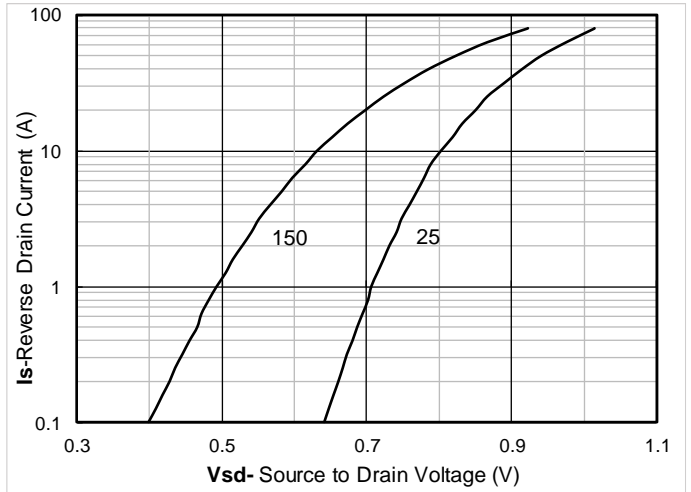


Figure 8. Forward characteristics of reverse diode



Figure 9. Normalized breakdown voltage

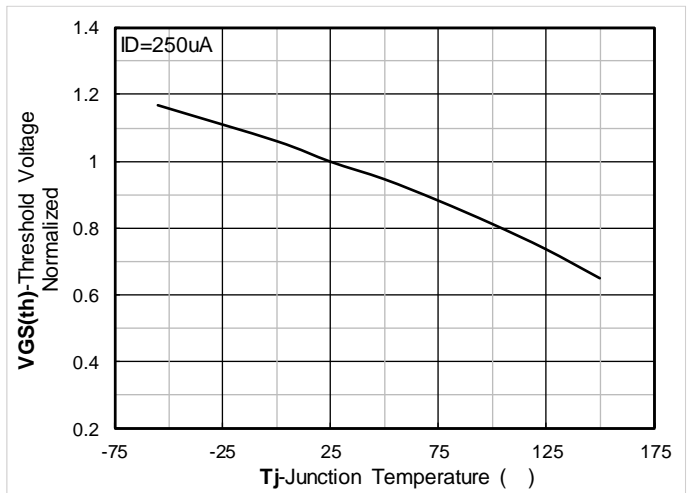


Figure 10. Normalized Threshold voltage

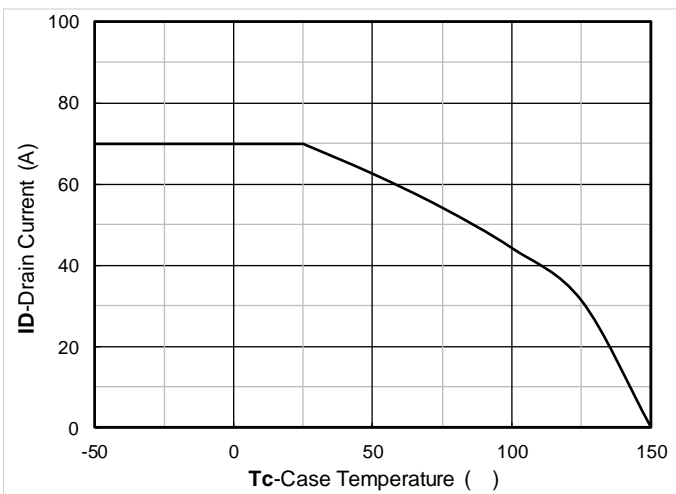


Figure 11. Current dissipation

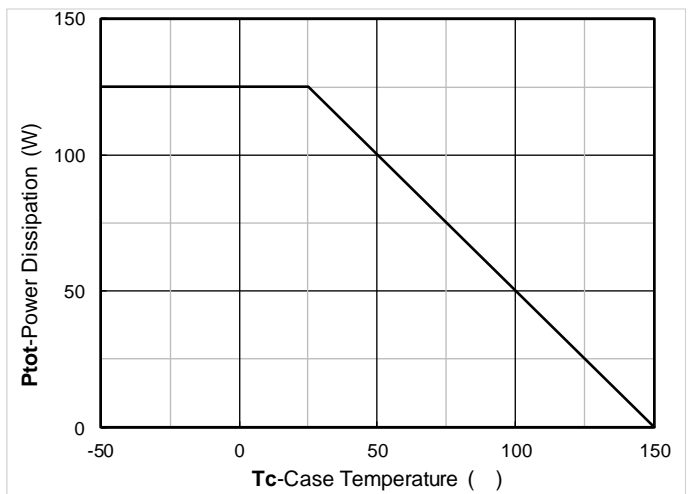


Figure 12. Power dissipation



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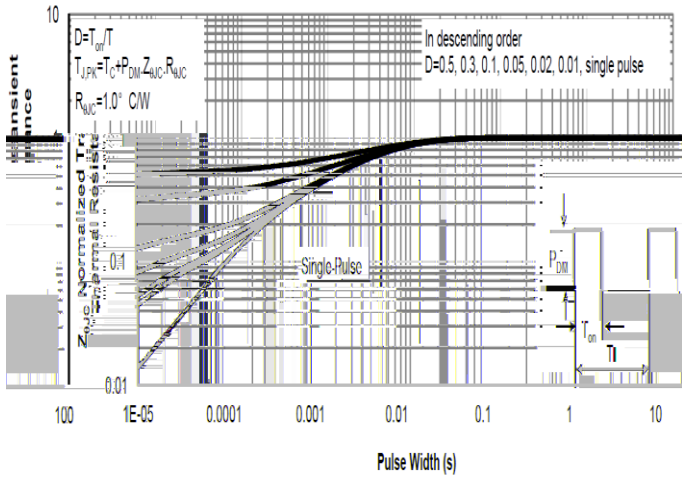


Figure 13. Normalized Maximum Transient thermal impedance

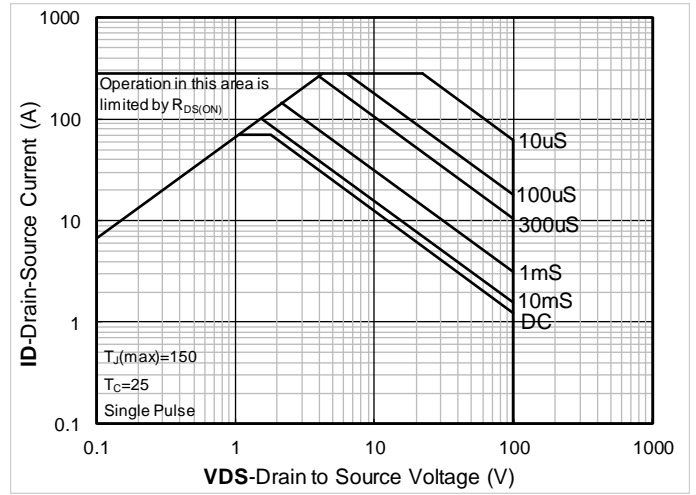
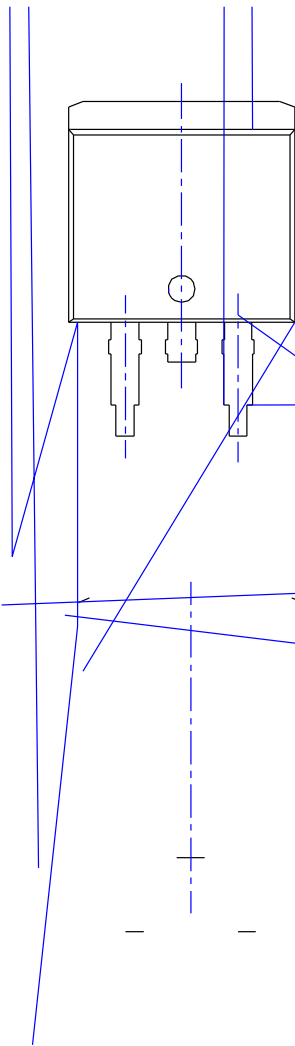


Figure 14. Safe Operation Area



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TO-263-HY Package information



SYMBOL	DIMENSIONS					
	INCHES			Millimeter		
	MIN.	NDM.	MAX.	MIN.	NDM.	MAX.
A1	0.000	---	0.010	0.000	---	0.250
A2	0.174	0.180	0.186	4.430	4.580	4.730
b	0.028	0.032	0.036	0.720	0.820	0.920
b2	0.046	0.050	0.054	1.180	1.280	1.380
c	0.013	0.015	0.018	0.330	0.390	0.450
c2	0.048	0.050	0.053	1.220	1.280	1.340
D1	0.295	0.307	0.319	7.500	7.800	8.100
D2	0.303	0.315	0.327	7.700	8.000	8.300
E	0.571	0.591	0.610	14.500	15.000	15.500
E1	0.337	0.341	0.348	8.550	8.700	8.950
E2	0.276	0.287	0.299	7.000	7.300	7.600
e	0.200BSC			5.080BSC		
L	0.070	---	0.110	1.790	---	2.790
L1	0.044	---	0.056	1.120	---	1.420
L2	0.030	---	0.070	0.770	---	1.770
L3	0.197REF			5.000REF		
	0°	---	8°	0°	---	8°

NOTE:

- 1.PACKAGE BODY SIZES EXCLUDE MOLD FLASH AND GATE BURRS.
- 2.TOLERANCE 0.1mm UNLESS OTHERWISE SPECIFIED.
- 3.THE PAD LAYOUT IS FOR REFERENCE PURPOSES ONLY.

UNIT mm



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