N-Channel Enhancement Mode Field Effect Transistor

Product Summary

V_{DS}	60V
I_D	200A
$R_{DS(ON)}$(at V_{GS}=10V)	2.9 mohm
$R_{DS(ON)}$(at V_{GS}=4.5V)	3.9 mohm

100% EAS Tested
100% V_{DS} Tested

General Description

Split Gate Trench MOSFET technology
Excellent package for heat dissipation
High density cell design for low $R_{DS(ON)}$

-0 Flammability Rating

alogen Free

Applications

Isolated DC-DC Converters
Motor control
Invertors

Absolute Maximum Ratings (T_A=25 unless otherwise noted)

Parameter		Symbol	Limit	Unit
Drain-source Voltage		V_{DS}	60	V
Gate-source Voltage		V_{GS}	± 20	V
Drain Current [A]	T_C=25	I_D	200	A
	T_C=100		125	
Pulsed Drain Current [B]		I_{DM}	600	A
Avalanche energy [C]		E_{AS}	506	mJ
Total Power Dissipation [D]		P_D	260	W
Thermal Resistance Junction-to-Case		R_{JC}	0.48	/ W
Thermal Resistance Junction-to-Ambient [E]		R_{JA}	28	
Junction and Storage Temperature Range		T_J ,T_{STG}	-55 +150	

Ordering Information (Example)

PREFERED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJB200G06C	F2	YJB200G06C				

■ Typic al Performance Characteristics

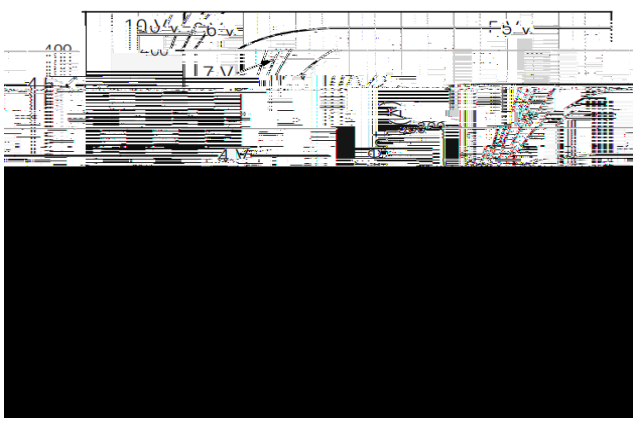

Figure1. Output Characteristics

Figure2. Transfer Characteristics

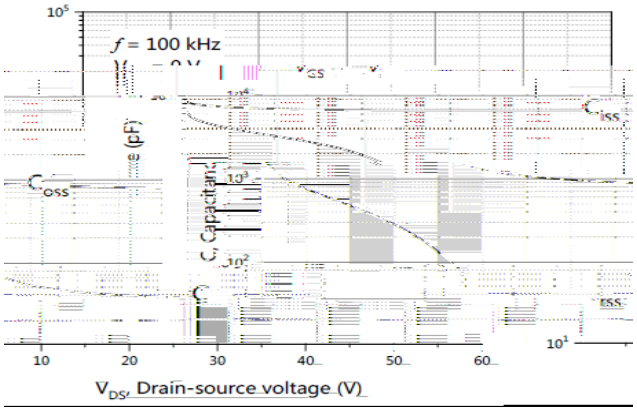

Figure3. Capacitance Characteristics

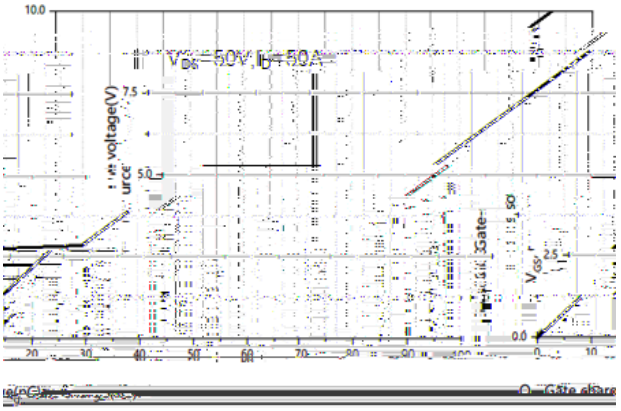

Figure4. Gate Charge

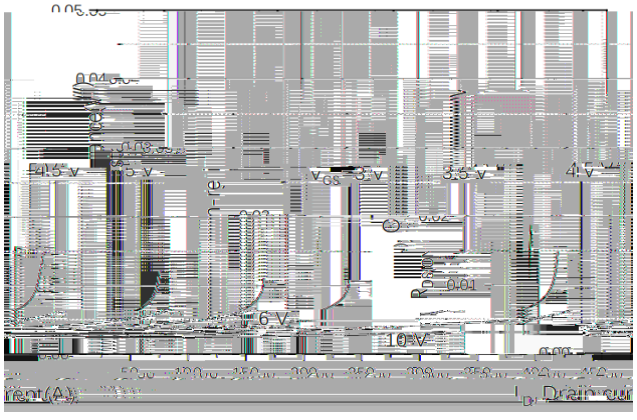

Figure5. Drain-Source on Resistance

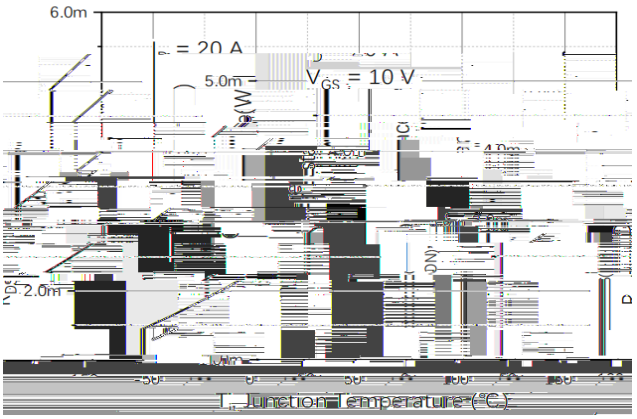

Figure6. Drain-Source on Resistance

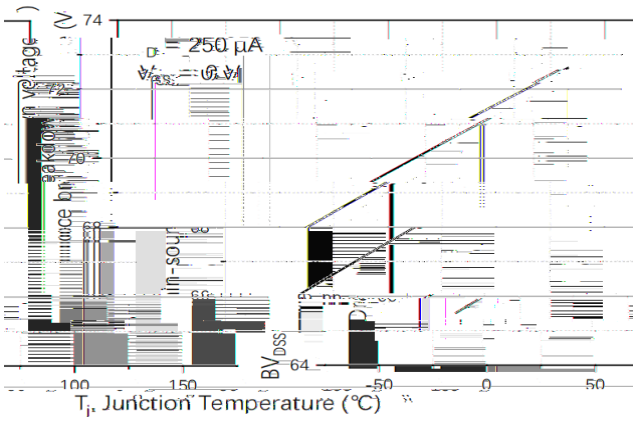

Figure7. Safe Operation Area

Figure8. Drain-source breakdown voltage

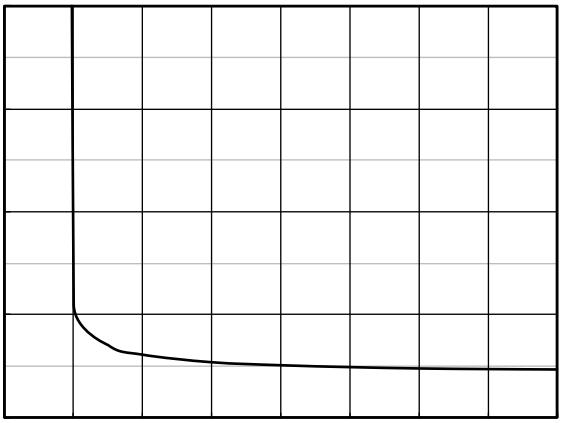

Figure9. On-Resistance vs Gate to Source Voltage

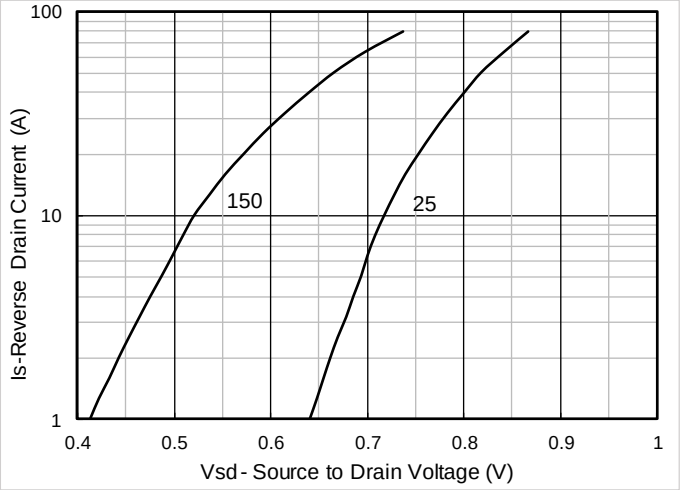

Figure10. Forward characteristics of reverse diode

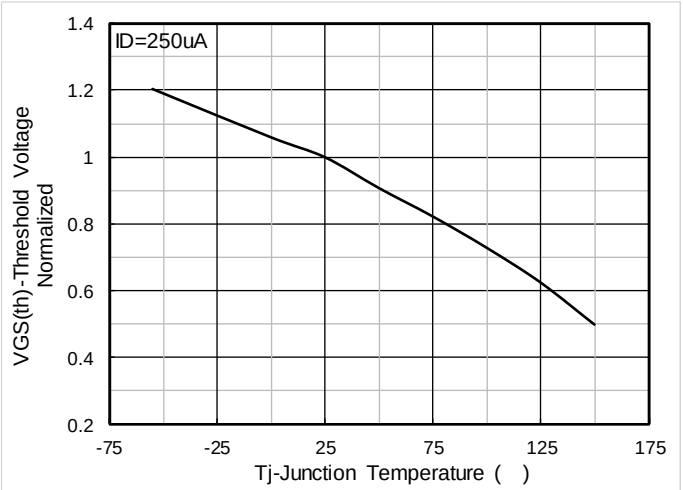

Figure11. Normalized Threshold voltage

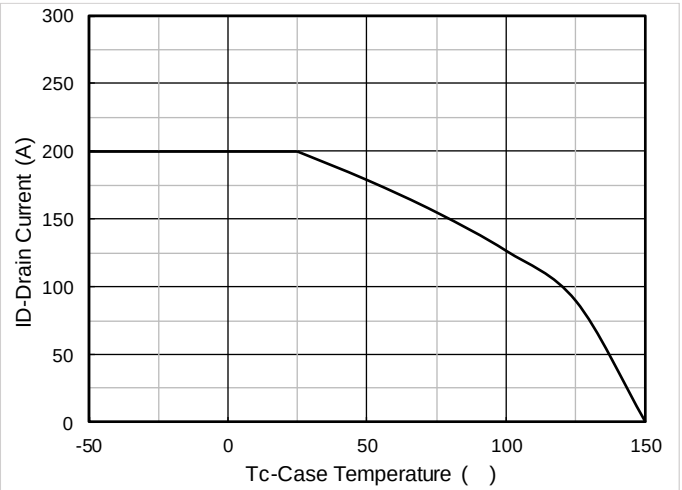

Figure12. Current dissipation

Figure C: Unclamped Inductive Switching (UIS) Test

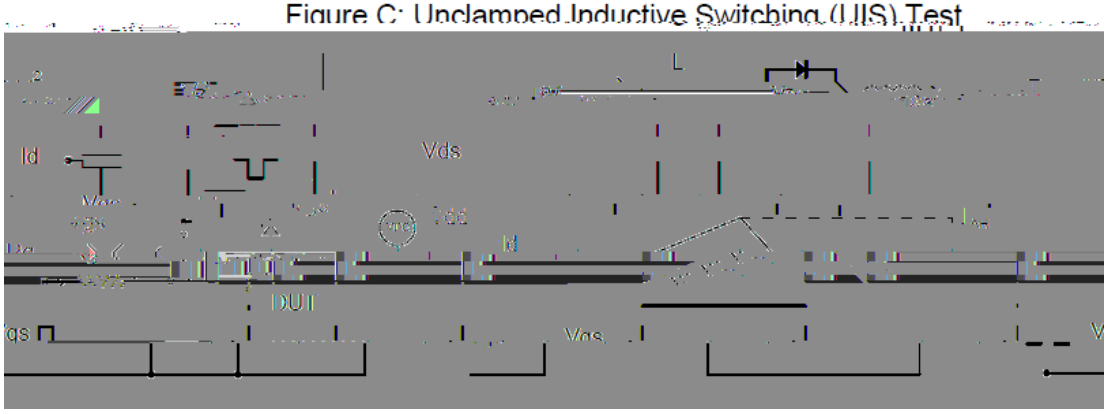

Figure D: Diode Recovery Test Circuit & Waveforms

TO-263-HY Package information

SYM.	MIN.	
A2		
b2		0.050
c		
c2		
D2		
E		
E1		

Disclaimer

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