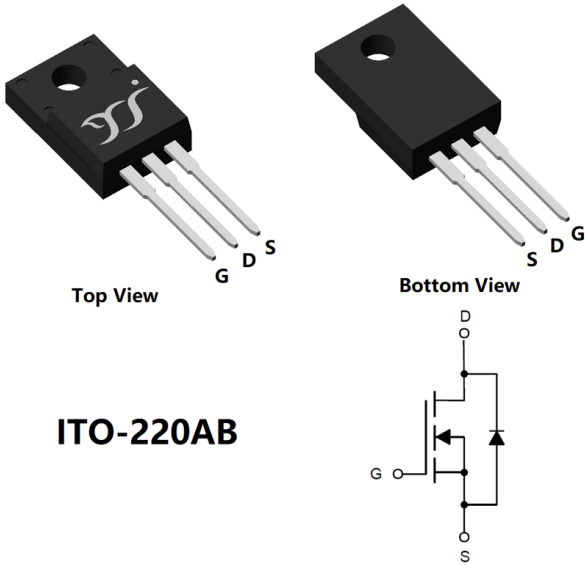


N-Channel Enhancement Mode Field Effect Transistor



ITO-220AB

Product Summary

- V_{DS} 800V
- I_D 6A
- $R_{DS(ON)}$ (at $V_{GS}=10V$) $<1.2\Omega$
- 100% EAS Tested
- 100% ∇V_{DS} Tested

General Description

- Super Junction High Voltage MOSFET technology
- Low Power Loss by High Speed Switching and Low On-Resistance
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free

Applications

- Power switching application
- Adapter
- PFC Power Supply Stages

■ Absolute Maximum Ratings ($T_A=25^\circ C$ unless otherwise noted)

Parameter		Symbol	Limit	Unit
Drain-source Voltage		V_{DS}	800	V
Gate-source Voltage		V_{GS}	± 20	V
Drain Current	$T_A=25^\circ C$	I_D	1	A
	$T_A=100^\circ C$		0.6	
	$T_C=25^\circ C$		6	
	$T_C=100^\circ C$		3.8	
Pulsed Drain Current ^A		I_{DM}	12	A
Avalanche energy ^B		EAS	4.9	mJ
Total Power Dissipation ^C	$T_A=25^\circ C$	P_D	2.5	W
	$T_A=100^\circ C$		1	
	$T_C=25^\circ C$		50	
	$T_C=100^\circ C$		20	
Junction and Storage Temperature Range		T_J, T_{STG}	-55~+150	$^\circ C$

■ Thermal resistance

Parameter		Symbol	Typ	Max	Units
Thermal Resistance Junction-to-Ambient ^D	Steady-State	$R_{\theta JA}$	40	50	$^\circ C/W$
Thermal Resistance Junction-to-Case	Steady-State	$R_{\theta JC}$	2	2.5	

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJF06C80HJ	B1	YJF06C80HJ	50	/	5000	Tube



■



YJF06C80HJ

Typical Electrical and Thermal Characteristics Diagrams

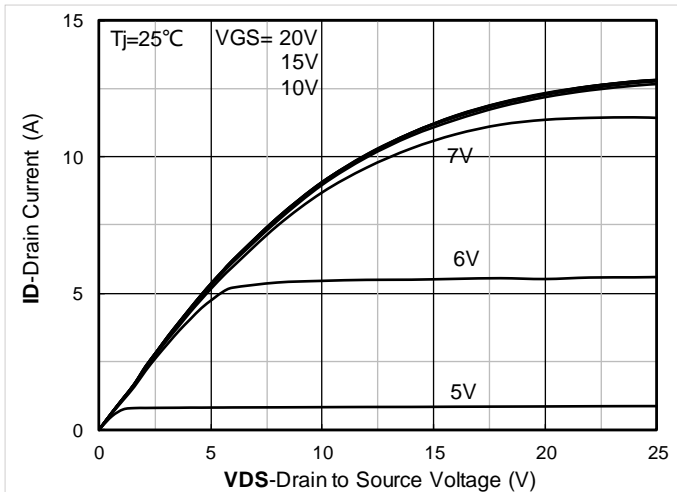


Figure 1. Output Characteristics

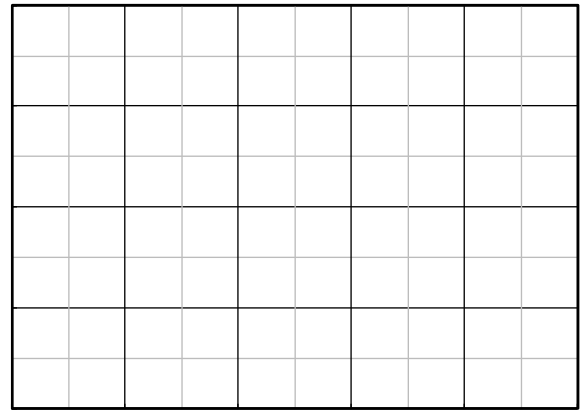


Figure 2. Transfer Characteristics

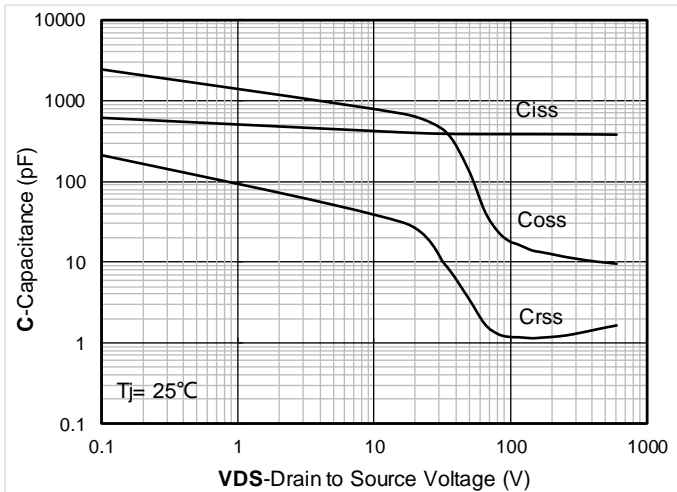


Figure 3. Capacitance Characteristics

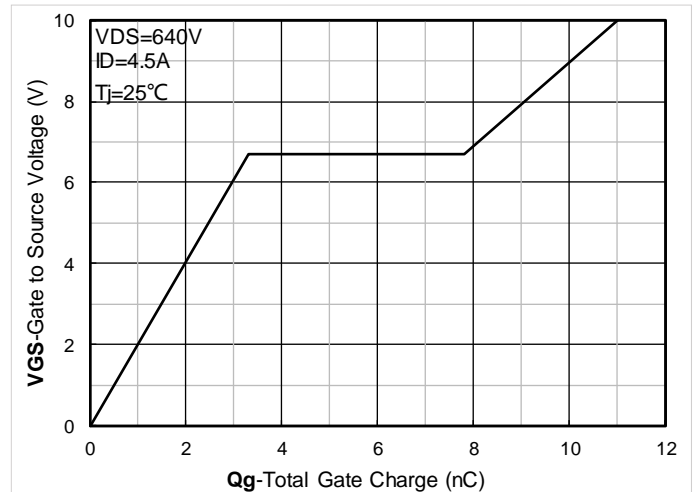


Figure 4. Gate Charge

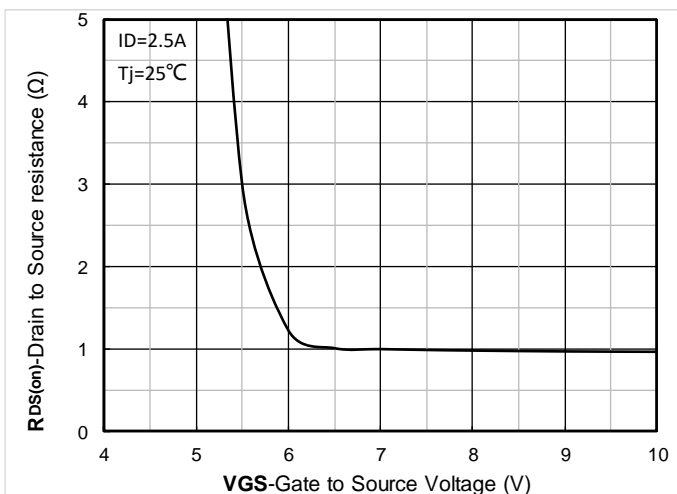


Figure 5. On-Resistance vs Gate to Source Voltage

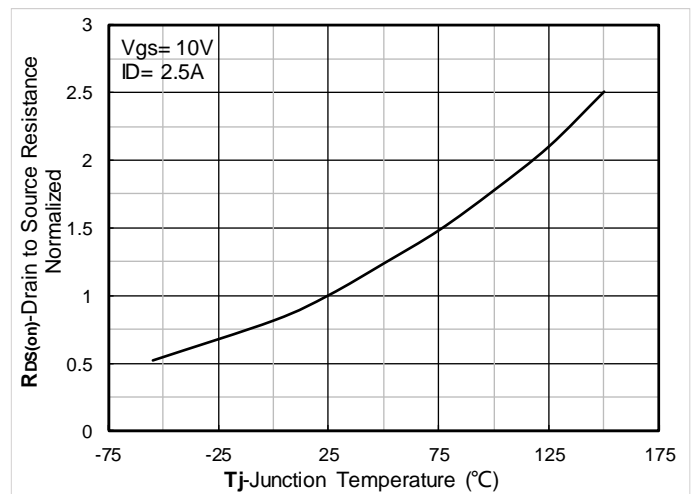


Figure 6. Normalized On-Resistance



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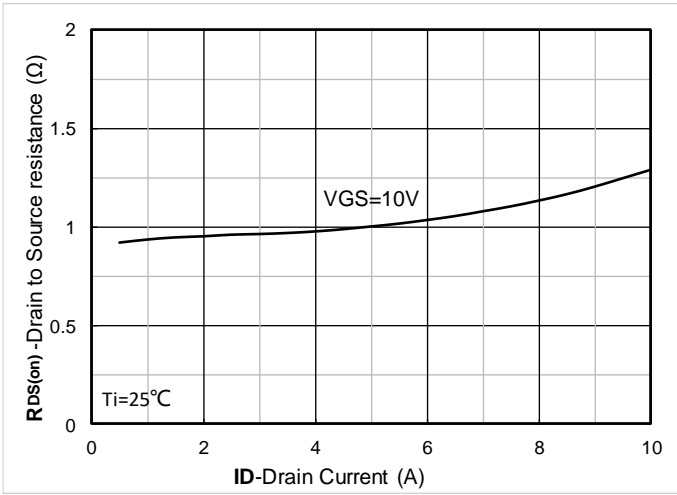


Figure 7. RDS(on) VS Drain Current

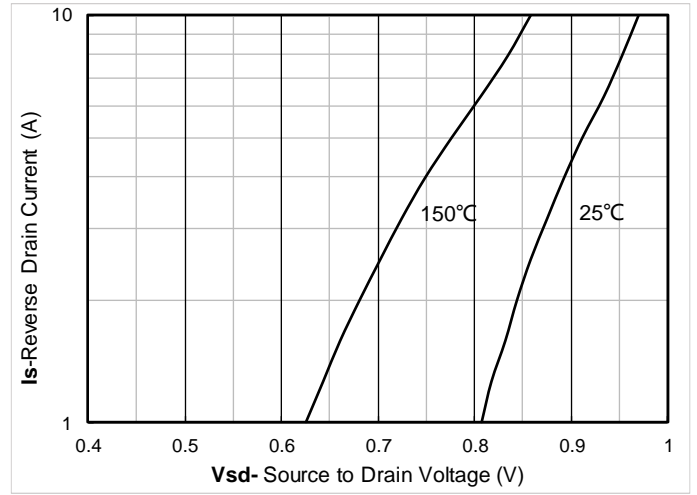


Figure 8. Forward characteristics of reverse diode

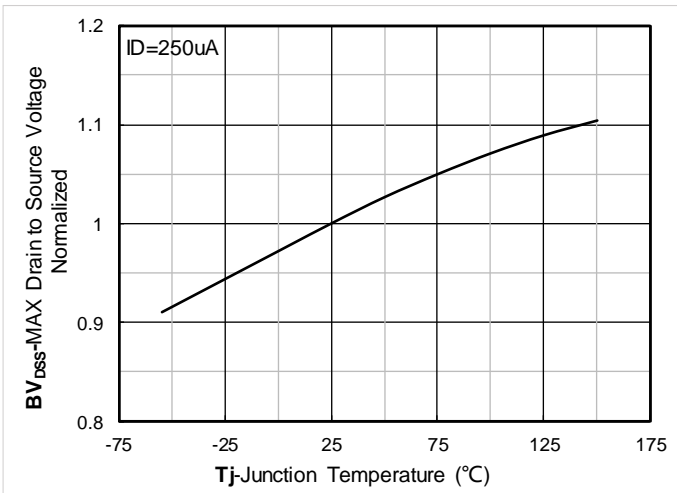


Figure 9. Normalized breakdown voltage

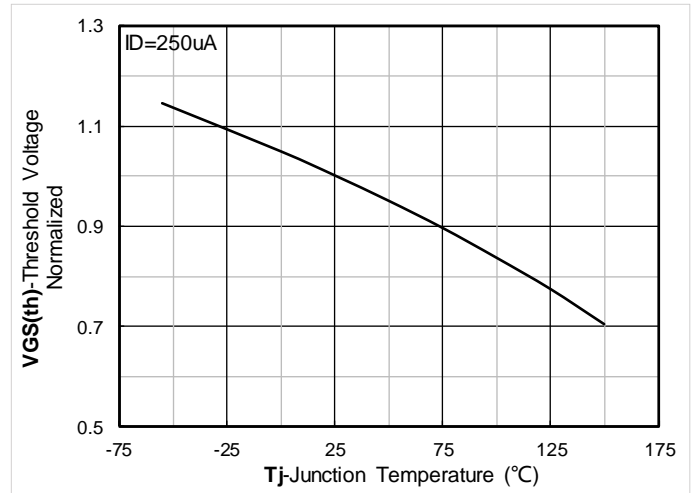


Figure 10. Normalized Threshold voltage

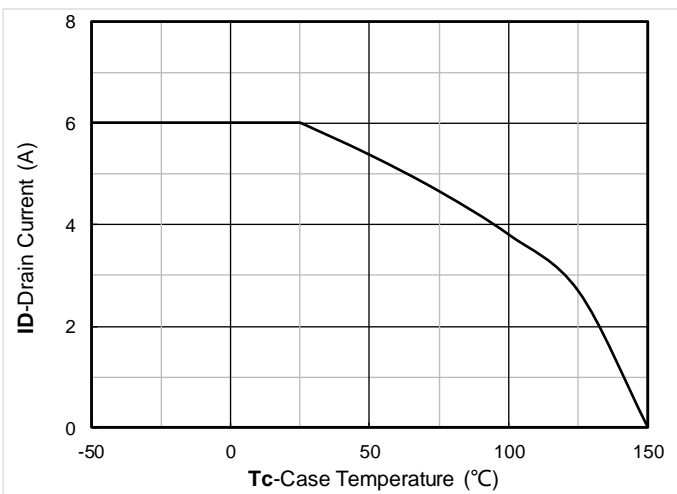


Figure 11. Current dissipation

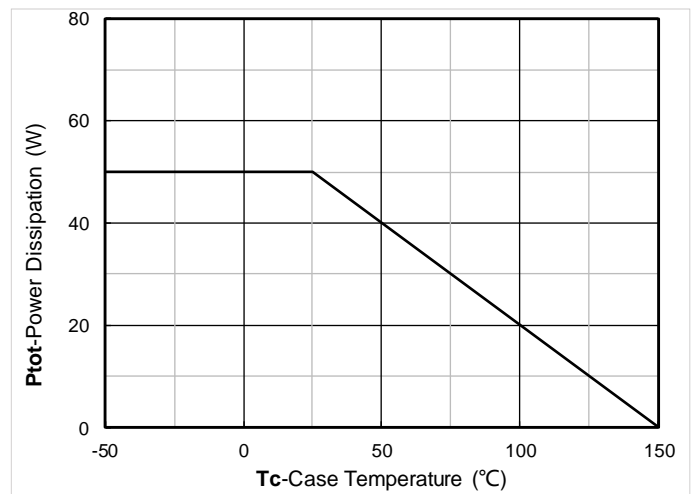


Figure 12. Power dissipation

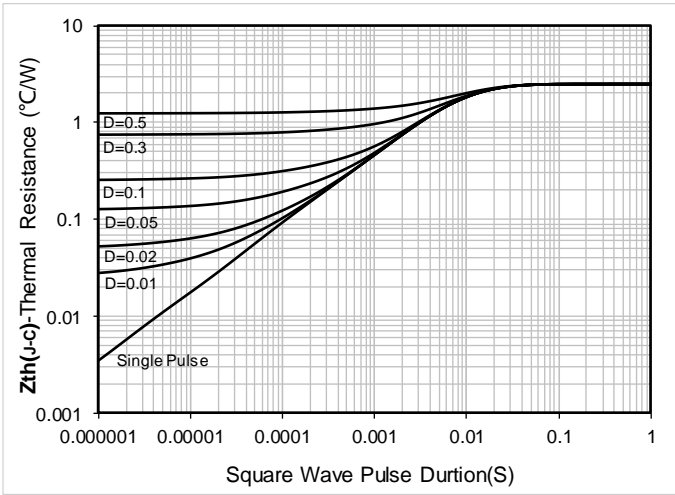


Figure 13. Maximum Transient Thermal Impedance

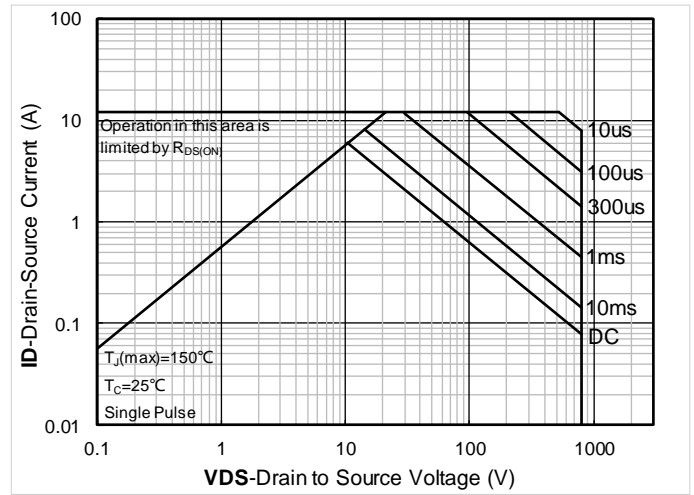


Figure 14. Safe Operation Area

■ Test Circuits & Waveforms

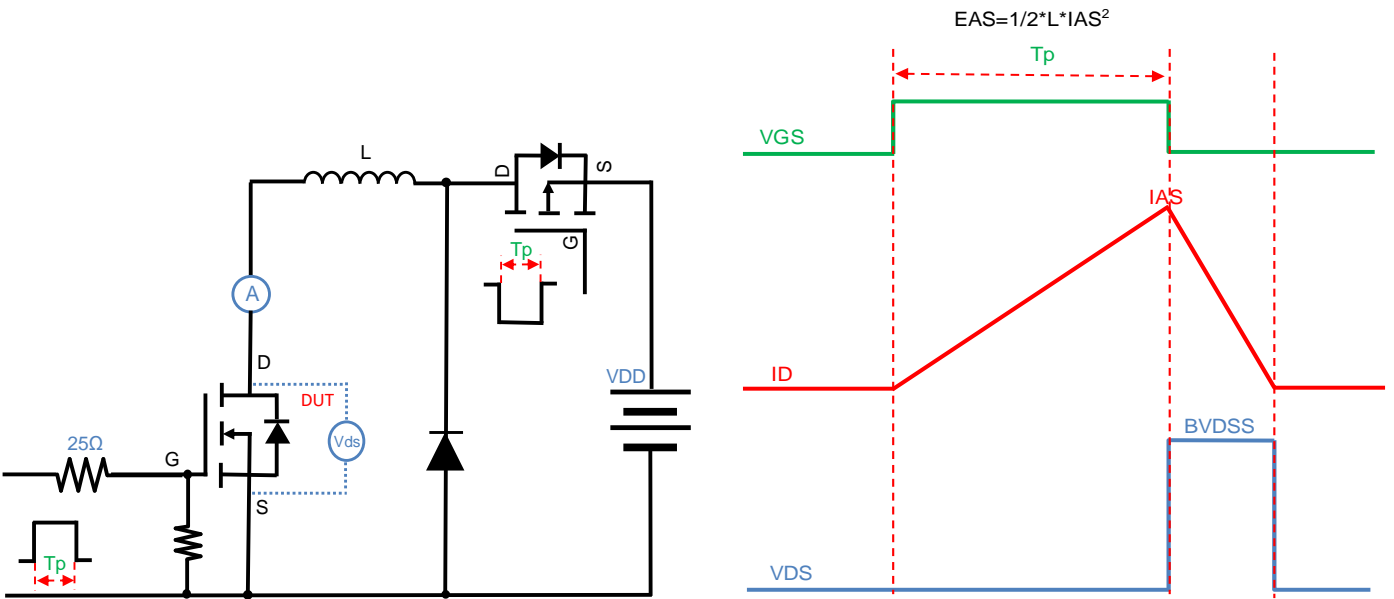


Figure A. Unclamped Inductive Switching (UIS) Test Circuit & Waveform



Figure B. Gate Charge Test Circuit & Waveform



Figure C. Resistive Switching Test Circuit & Waveform



Figure D. Diode Recovery Test Circuit & Waveform



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■ ITO-220AB-B Package information

SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MA	MIN.	MAX.
A	0.382	0.406	9.700	10.300
B	0.610	0.634	15.500	16.100
B1	0.354	0.370	8.990	9.390
C	0.173	0.189	4.400	4.800
C1	0.085		2.150	2.550
D	0.098		2.500	2.900
F	0.016		0.400	0.600
H				
L	0.496		12.600	13.600
N				

NOTE:

- 1.PACKAGE BODY SIZES EXCLUDE MOLD FLASH AND GATE BURRS.
- 2.TOLERANCE 0.1mm UNLESS OTHERWISE SPECIFIED.



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