N-Channel Enhancement Mode Field Effect Transistor

Product Summary

● V_{DS}	100V
● I_D	56A
● $R_{DS(ON)}$(at V_{GS}=10V)	Ø11mΩ
● $R_{DS(ON)}$(at V_{GS}=4.5V)	Ø16mΩ
● 100% EAS Tested	
● 100% j V_{DS} Tested	

General Description

- Low $R_{DS(on)}$ & FOM
- Extremely low switching loss

■Thermal resistance

Parameter		Symbol	Typ	Max	Units
Thermal Resistance Junction-to-Ambient [D]	Steady-State	$R_{\theta JA}$	35	42	- /W
Thermal Resistance Junction-to-Case	Steady-State	$R_{\theta JC}$	1.5	1.8	

■ Ordering Information (Example)

PREFERED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJB011G10AQ	F1	YJB011G10A	800	/	8000	13”Reel

A. Repetitive rating; pulse width limited by max. junction temperature.
B. T_J=25 - , V_{DD}=40V, V_G=10V, R_G=25Ω, L=0.5mH, IAS=20A.
C. P_d is based on max. junction temperature, using junction-case thermal resistance.
D. The value of $R_{\theta JA}$

nC Å

G

■Typical Electrical and Thermal Characteristics Diagrams

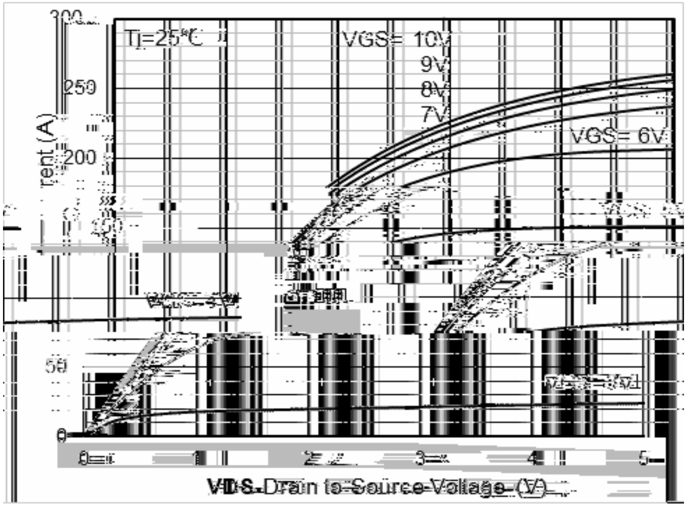


Figure 1. Output Characteristics

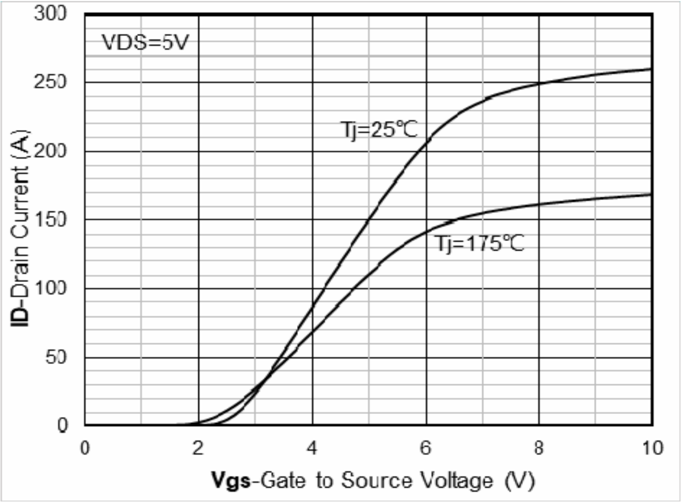
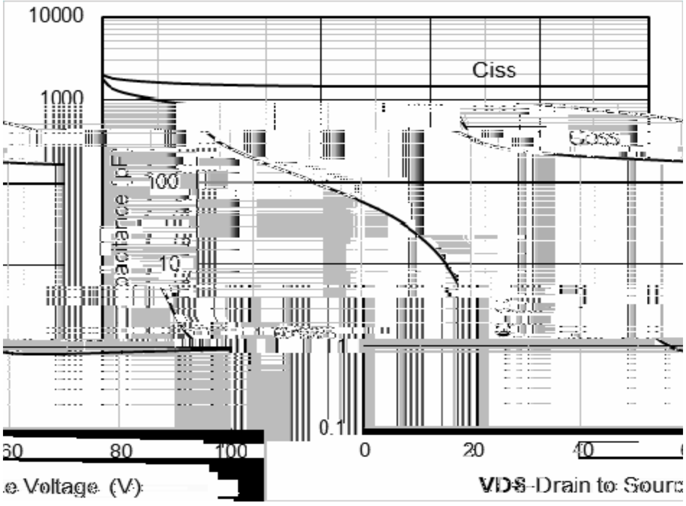


Figure 2. Transfer Characteristics



3. Capacitance Characteristics

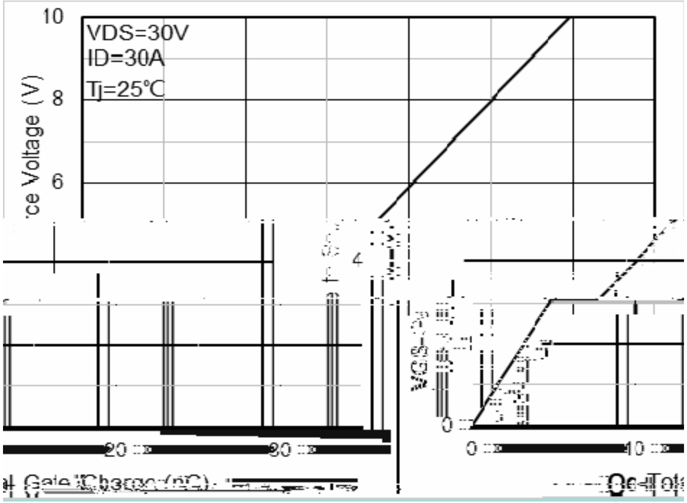


Figure 4. Gate Charge

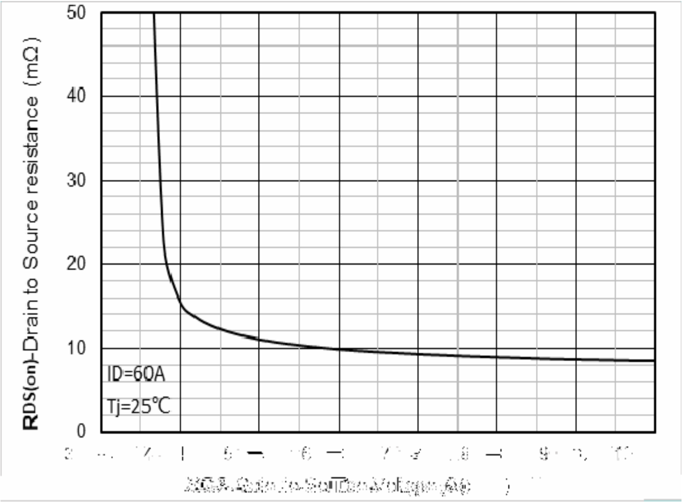


Figure 5. On-Resistance vs Gate to Source Voltage

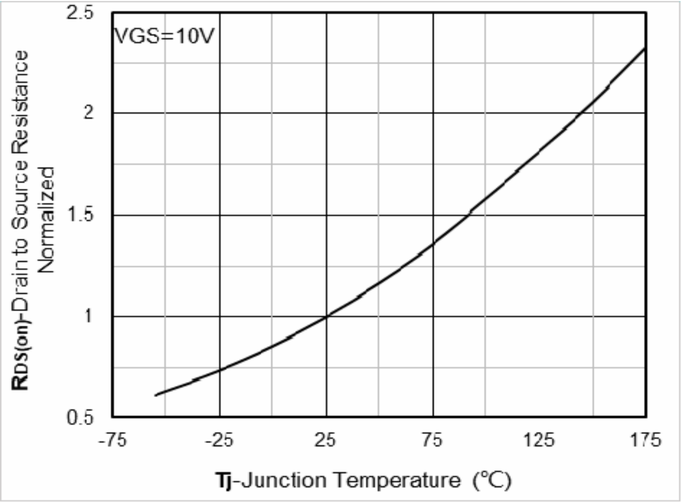


Figure 6. Normalized On-Resistance

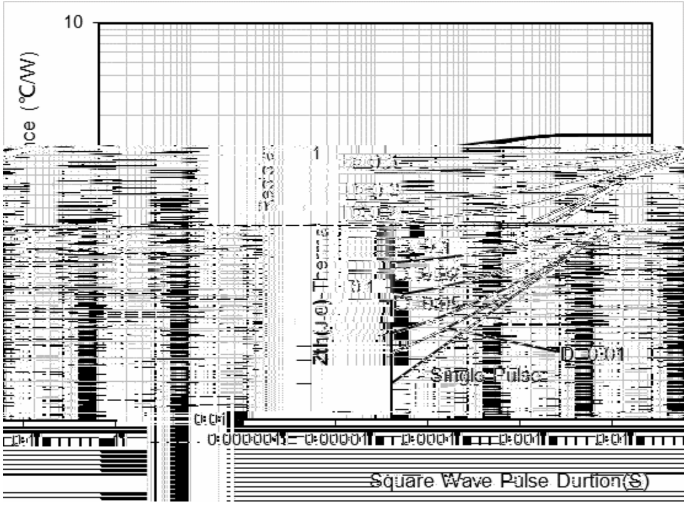


Figure 13. Maximum Transient Thermal Impedance

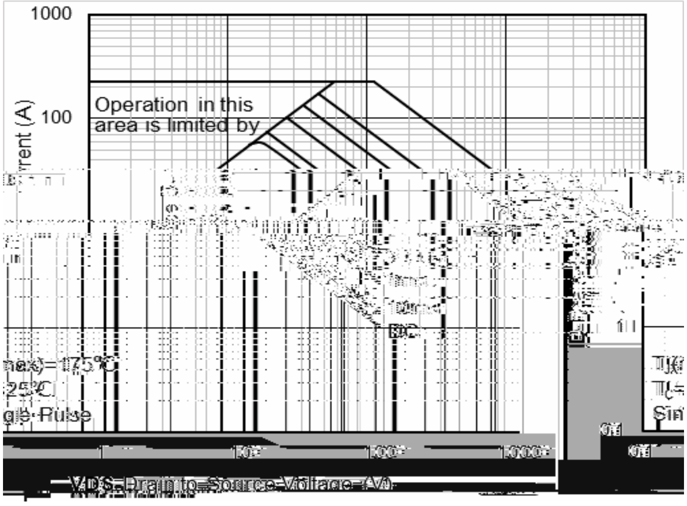


Figure 14. Safe Operation Area