Gate Charge Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test condition
Total Gate Charge	Q_g		101.6		nC	I_D=22 A, V_{DS}=50 V, V_{GS}=10 V
Gate-Source Charge	Q_{gs}		20.6		nC	
Gate-Drain Charge	Q_{gd}		28.7		nC	
Gate Plateau Voltage	$V_{plateau}$		4.2		V	

Body Diode Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test condition
Diode Forward Current	I_S			130	A	V_{GS}<V_{th}
Pulsed Source Current	I_{SP}			390		
Diode Forward Voltage	V_{SD}			1.3	V	I_S=20 A, V_{GS}=0 V
Reverse Recovery Time	t_{rr}		82.1		ns	I_S=10 A, di/dt=100 A/μs
Reverse Recovery Charge	Q_{rr}		248.4		nC	
Peak Reverse Recovery Current	I_{rrm}		4.9		A	

Notes:

1) Calculated continuous current based on maximum allowable junction temperature.
2) Repetitive rating; pulse width limited by max. junction temperature.
3) Pd is based on max. junction temperature, using junction-case thermal resistance.
4) The value of $R_{\theta JA}$ is measured with the device mounted on 1 in 2 FR-4 board with 2oz. Copper, in a still air environment with T_a=25 ℃.
5) V_{DD}=50 V, R_G=25 Ω, L=0.5 mH, starting T_J=25 ℃.

Typical Characteristic Curves

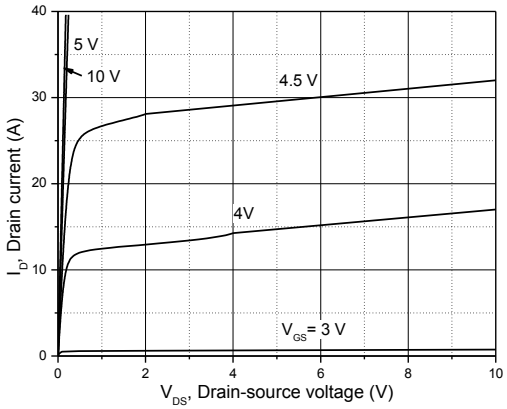

Figure 1, Typ. output characteristics

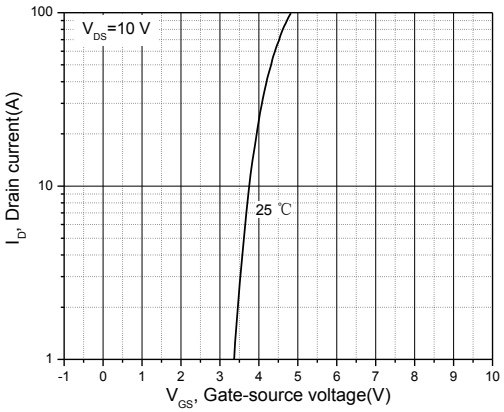

Figure 2, Typ. transfer characteristics

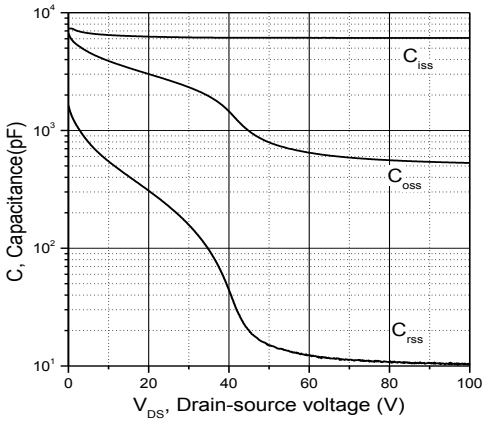

Figure 3, Typ. capacitances

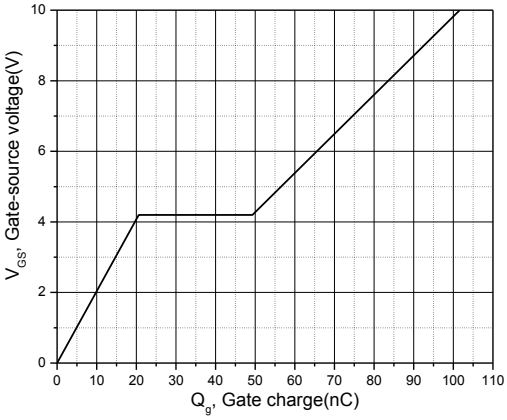

Figure 4, Typ. gate charge

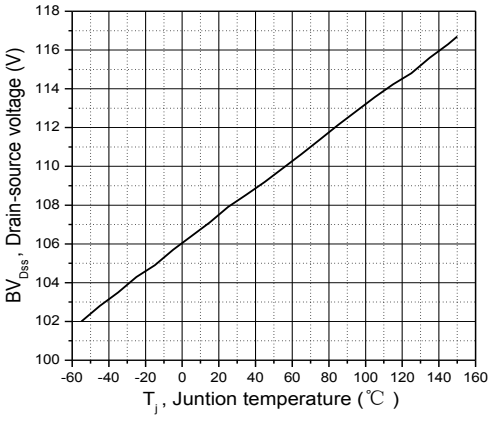

Figure 5, Drain-source breakdown voltage

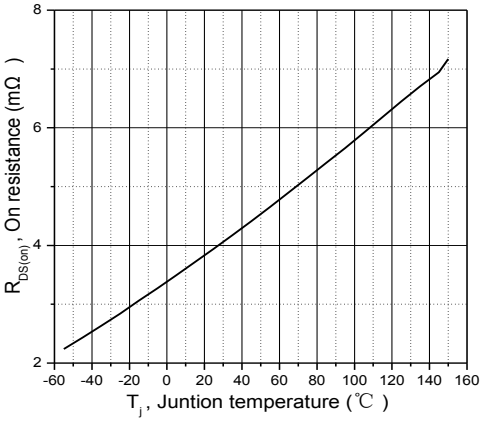

Figure 6, Drain-source on-state resistance