

GaN FET Datasheet

Static characteristics ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Values			Unit	Note/Test Condition
		Min	Typ	Max		
Gate threshold voltage	$V_{GS(th)}$	1.2	2	2.8	V	
Drain-Source on-state resistance	$R_{DS(on)}$	-	40	-	$\text{m}\Omega$	
Gate internal resistance	$R_{G,int}$	-	1.3	-	Ω	

Dynamic characteristics ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Values			Unit	Note/Test Condition
		Min	Typ	Max		
Input capacitance	C_{iss}	-	140	-	pF	
Output capacitance	C_{oss}	-	35	-	pF	
Turn- on delay time	$t_{d(on)}$	-	1.5	-	ns	$V_{DD} = 400V$
Rise time	t_r	-	5.0	-	ns	$I_D = 10A$
Turn-off delay time	$t_{d(off)}$	-	3.0	-	ns	$V_{GS} = +8/-3V$
Fall time	t_f	-	4.8	-	ns	$R_{G(on)} = 8\Omega,$ $R_{G(off)} = 2\Omega$ See Figure3.

Figure 1. Capacitance Characteristics

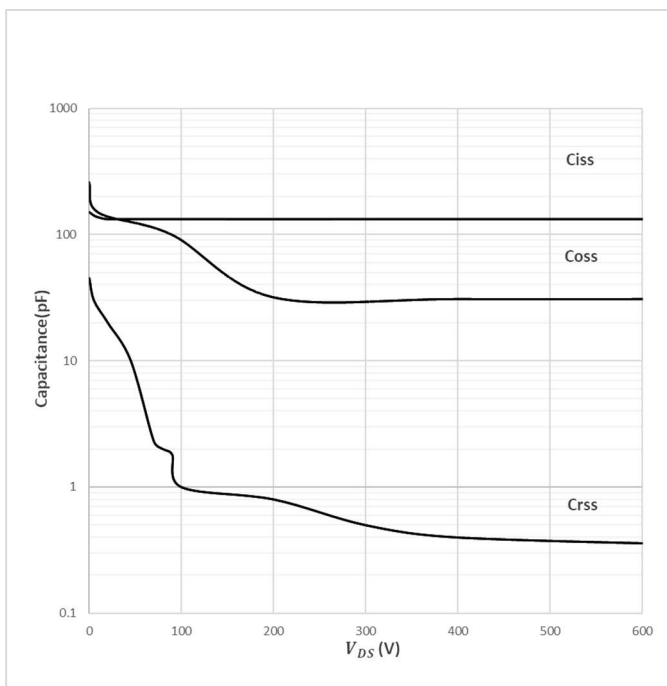


Figure 2. Reverse Drain-Source Characteristics

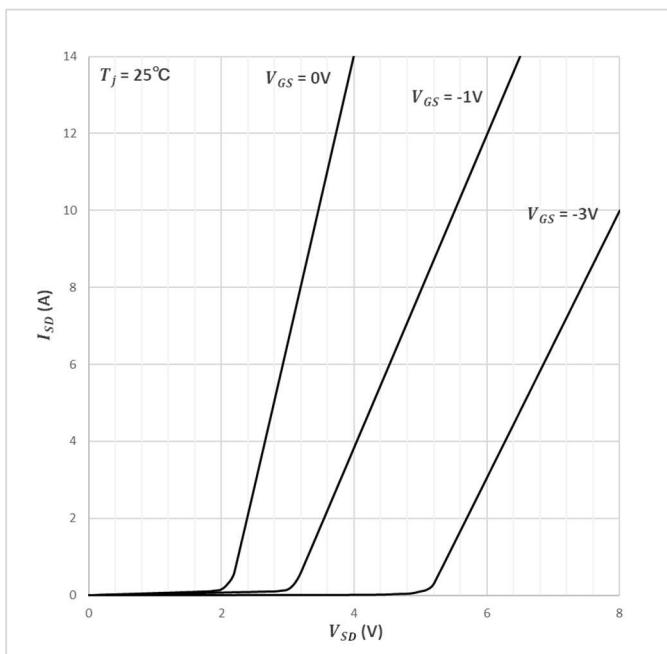


Figure 3. Switching Test Circuit

