

ELECTRICAL CHARACTERISTICS (T_{amb} = 25°C unless otherwise stated)

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
STATIC ELECTRICAL RATINGS							
BV _{DSS}	Drain – Source Breakdown Voltage	V _{GS} = 0	I _D = 1mA	500			V
ΔBV _{DSS} ΔT _J	Temperature Coefficient of Breakdown Voltage	Reference to 25°C I _D = 1mA			0.43		V/°C
R _{DS(on)}	Static Drain – Source On–State Resistance	V _{GS} = 10V	I _D = 1A			3	Ω
		V _{GS} = 10V	I _D = 1.5A			3.45	
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS}	I _D = 250μA	2		4	V
g _{fs}	Forward Transconductance	V _{DS} ≥ 15V	I _{DS} = 1A	1			S(Ω)
I _{DSS}	Zero Gate Voltage Drain Current	V _{GS} = 0	V _{DS} = 0.8BV _{DSS}			25	μA
			T _J = 125°C			250	
I _{GSS}	Forward Gate – Source Leakage	V _{GS} = 20V				100	nA
I _{GSS}	Reverse Gate – Source Leakage	V _{GS} = –20V				–100	
DYNAMIC CHARACTERISTICS							
C _{iss}	Input Capacitance	V _{GS} = 0 V _{DS} = 25V f = 1MHz			350		pF
C _{oss}	Output Capacitance				80		
C _{rss}	Reverse Transfer Capacitance				35		
Q _g	Total Gate Charge	V _{GS} = 10V I _D = 1.5A V _{DS} = 0.5BV _{DS}		7.3		16.7	nC
Q _{gs}	Gate – Source Charge	I _D =1.5A		0.1		3	nC
Q _{gd}	Gate – Drain (“Miller”) Charge	V _{DS} = 0.5BV _{DS}		3.7		8.7	
t _{d(on)}	Turn–On Delay Time	V _{DD} = 250V I _D = 1.5A R _G = 7.5Ω				40	ns
t _r	Rise Time					30	
t _{d(off)}	Turn–Off Delay Time					60	
t _f	Fall Time					30	
SOURCE – DRAIN DIODE CHARACTERISTICS							
I _S	Continuous Source Current					1.5	A
I _{SM}	Pulse Source Current ²					6.5	
V _{SD}	Diode Forward Voltage	I _S = 1.5A T _J = 25°C V _{GS} = 0				1.2	V
t _{rr}	Reverse Recovery Time	I _F = 1.5A T _J = 25°C				900	ns
Q _{rr}	Reverse Recovery Charge	d _i / d _t ≤ 100A/μs V _{DD} ≤ 50V				5.9	μC
t _{on}	Forward Turn–On Time			Negligible			
PACKAGE CHARACTERISTICS							
L _D	Internal Drain Inductance (from centre of drain pad to die)				5.0		nH
L _S	Internal Source Inductance (from centre of source pad to end of source bond wire)				15.0		

Notes

- 1) Pulse Test: Pulse Width ≤ 300μs, δ ≤ 2%
- 2) Repetitive Rating – Pulse width limited by maximum junction temperature.