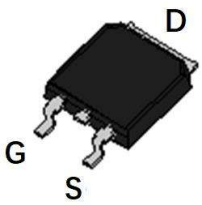
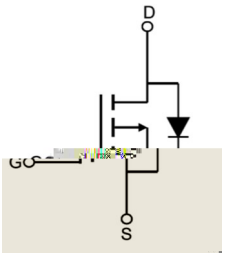
JMTK50P02A







℃

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Electrical Characteristics (T =25℃ unless otherwise specified)

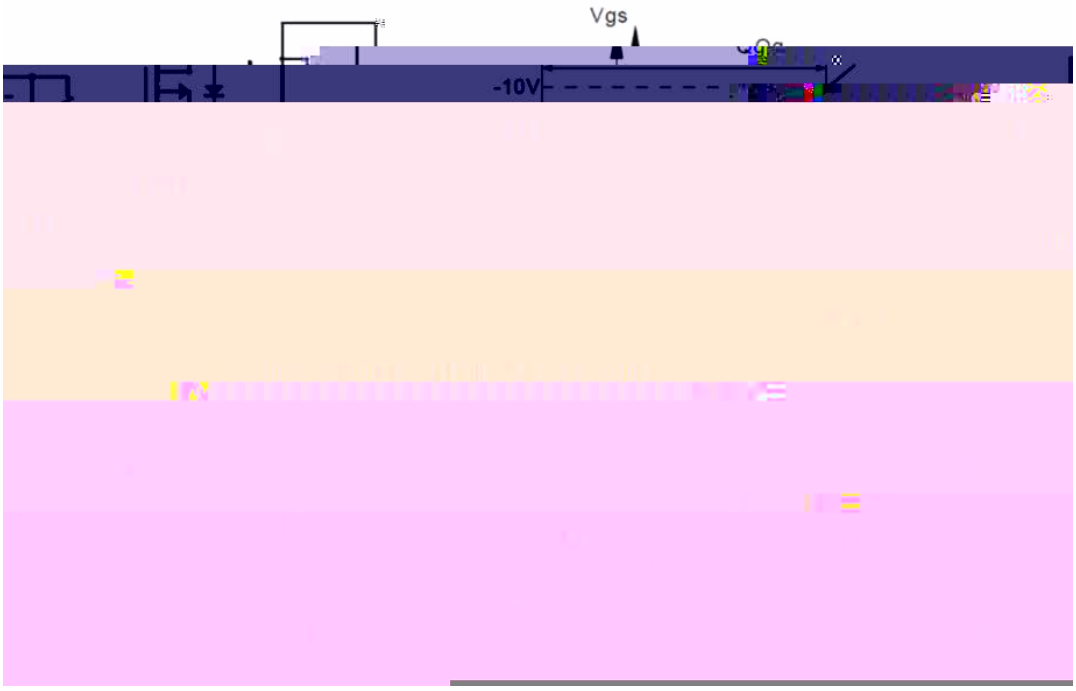
Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
Off Characteristic						
V	Drain-Source Breakdown Voltage	V =0V,I = -250εA	-20	-	-	V
I	Zero Gate Voltage Drain Current	V = -20V, V = 0V,	-	-	-1	εA
I	Gate to Body Leakage Current	V =0V, V = Ñ12V	-	-	Ñ100	nA
On Characteristics						
V	Gate Threshold Voltage	V = V , I = -250εA	-0.4	-0.85	-1.2	V
R	Static Drain-Source on-Resistance	V =-4.5V, I =-15A	-	6.6	8.5	mq
		V =-2.5V, I =-12A	-	8	12	
Dynamic Characteristics						
C	Input Capacitance	V =-10V, V =0V, f = 1.0MHz	-	4590	-	pF
C	Output Capacitance		-	505	-	pF
C	Reverse Transfer Capacitance		-	440	-	pF
Q	Total Gate Charge	V =-10V, I =-15A, V =-4.5V	-	46	-	nC
Q	Gate-Source Charge		-	7.3	-	nC
Q	Gate-Drain(ìMillerò) Charge		-	10	-	nC
Switching Characteristics						
t	Turn-on Delay Time	V =-10V, I =-14A, R =2.7q, V =-10V	-	8	-	ns
t	Turn-on Rise Time		-	59	-	ns
t	Turn-off Delay Time		-	111	-	ns
t	Turn-off Fall Time		-	43	-	ns
Drain-Source Diode Characteristics and Maximum Ratings						
I	Maximum Continuous Drain to Source Diode Forward Current		-	-	-60	A
I	Maximum Pulsed Drain to Source Diode Forward Current		-	-	-240	A
V	Drain to Source Diode Forward Voltage	V = 0V, I =-20A	-	-	-1.2	V
trr	Reverse Recovery Time	T =25℃,I =-15A, V =0V di/dt=-100A/εs	-	18	-	ns
Qrr	Reverse Recovery Charge		-	7.7	-	nC

Notes:1. Repetitive Rating: Pulse Width Limited by Maximum Junction Temperature

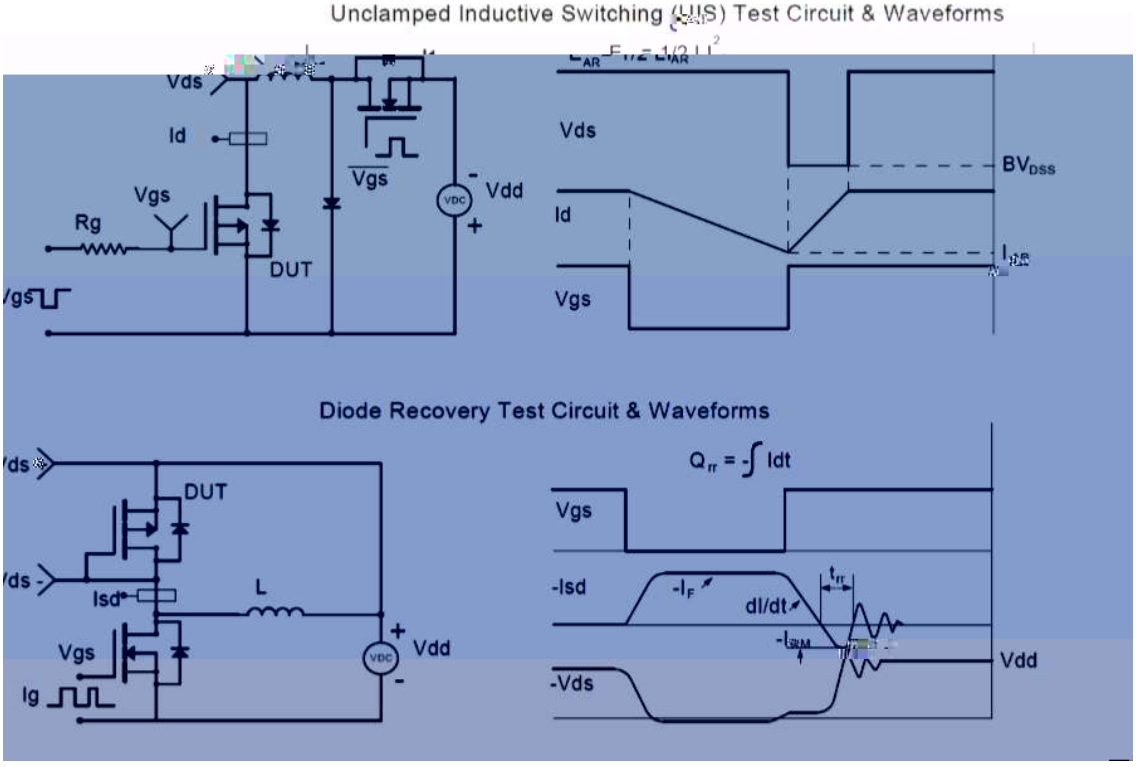
2. EAS condition: T =25℃,V =-10V,V =-10V, R =5.9q, L=0.5mh,I =-13.2A

3. Pulse Test: Pulse WidthÒ300εs, Duty CycleÒ0.5%

Gate Charge Test Circuit & Waveform



Unclamped Inductive Switching (UIS) Test Circuit & Waveforms



Diode Recovery Test Circuit & Waveforms
