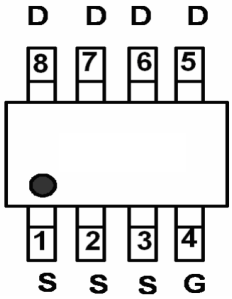
VDS= -30V

RDS(ON), Vgs@-10V, Ids@-8.0A = 22mΩ

RDS(ON), Vgs@-4.5V, Ids@-6.0A = 35mΩ

pin assignment

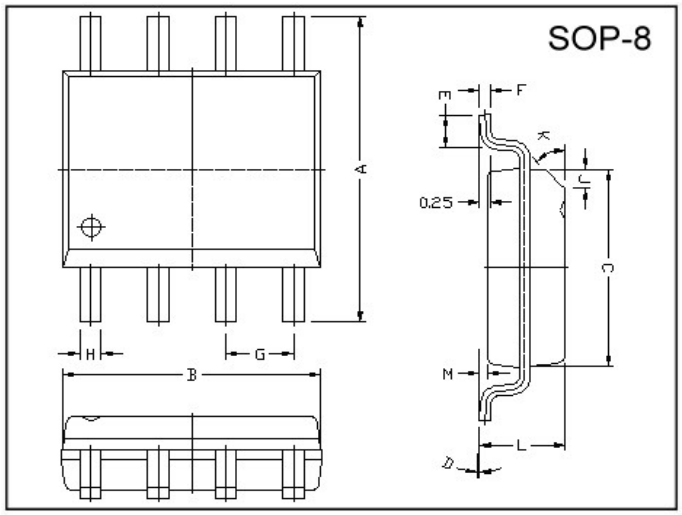


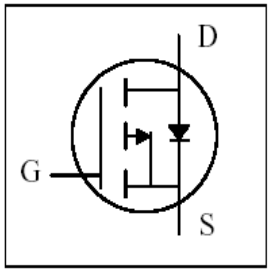
Features

Advanced trench process technology

High Density Cell Design For Ultra Low On-Resistance

Package Dimensions





REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	5.80	6.20	M	0.10	0.25
B	4.80	5.00	H	0.35	0.49
C	3.80	4.00	L	1.35	1.75
D	0°	8°	J	0.375 REF.	
E	0.40	0.90	K	45°	
F	0.19	0.25	G	1.27 TYP.	

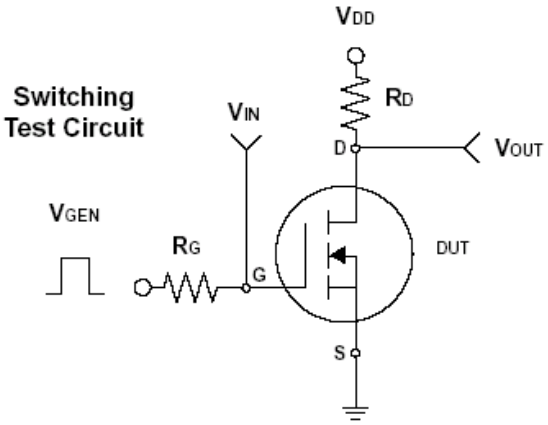
Maximum Ratings and Thermal Characteristics (TA = 25oC unless otherwise noted) 25 °C

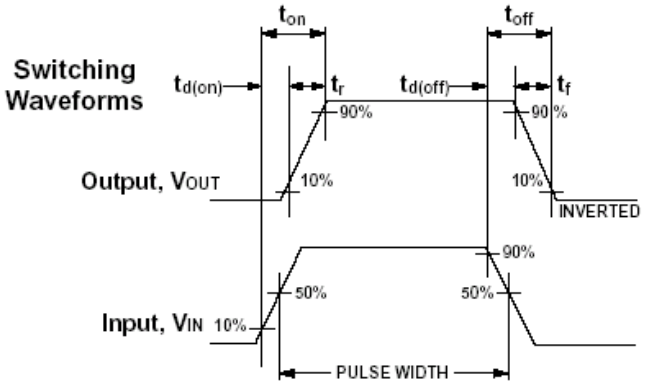
Parameter		Symbol	Limit	Unit
Drain-Source Voltage		V_{DS}	-30	V
Gate-Source Voltage		V_{GS}	± 20	
Continuous Drain Current		I_D	-10	A
Pulsed Drain Current		I_{DM}	-50	
Maximum Power Dissipation	TA = 25°C	P_D	2.5	W
	TA = 75°C		1.2	
Operating Junction and Storage Temperature Range		T_J, T_{stg}	-55 to 150	°C
Junction-to-Ambient Thermal Resistance (PCB mounted)		$R_{\theta JA}$	50	°C/W

ELECTRICAL CHARACTERISTICS

Parameter	符号	Test Condition	最小值	典型值	最大值	单位
Static						
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS} = 0V, I_D = -250uA	-30			V
Drain-Source On-State Resistance	$R_{DS(on)}$	V_{GS} = -10V, I_D = -8.0A		18.0	22.0	mΩ
Drain-Source On-State Resistance	$R_{DS(on)}$	V_{GS} = -4.5V, I_D = -6.0A		25.0	35.0	
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS} =V_{GS}, I_D = -250uA	-1	-1.4	-3	V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS} = -24V, V_{GS} = 0V			-1	uA
Gate Body Leakage	I_{GSS}	V_{GS} = ± 20V, V_{DS} = 0V			± 100	nA
Forward Transconductance	g_{fs}	V_{DS} = -10V, I_D = -5A		21		S
Dynamic						
Total Gate Charge	Q_g	V_{DS} = -15V, I_D = -1.5A V_{GS} = 10V		26		nC
Gate-Source Charge	Q_{gs}			2.6		
Gate-Drain Charge	Q_{gd}			4.8		
Turn-On Delay Time	$t_{d(on)}$	V_{DD} = -15V, RL=15Ω I_D = -1A, V_{GEN} = -10V R_G = 6Ω		17		ns
Turn-On Rise Time	t_r			14		
Turn-Off Delay Time	$t_{d(off)}$			83		
Turn-Off Fall Time	t_f			33		
Input Capacitance	C_{iss}	V_{DS} =-15 V, V_{GS} = 0V f = 200KHz		1600		pF
Output Capacitance	C_{oss}			225		
Reverse Transfer Capacitance	C_{rss}			165		
Source-Drain Diode 源漏二极管参数						
Max. Diode Forward Current	I_S			-2.1		A
Diode Forward Voltage	V_{SD}	I_S = -2.1A, V_{GS} = 0V		0.78		V

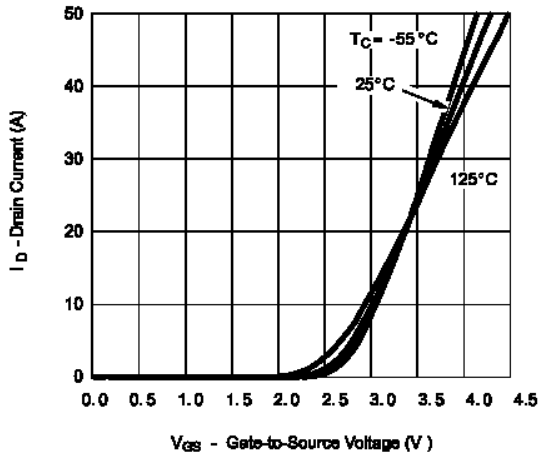
Note: Pulse test: pulse width <= 300us, duty cycle<= 2%



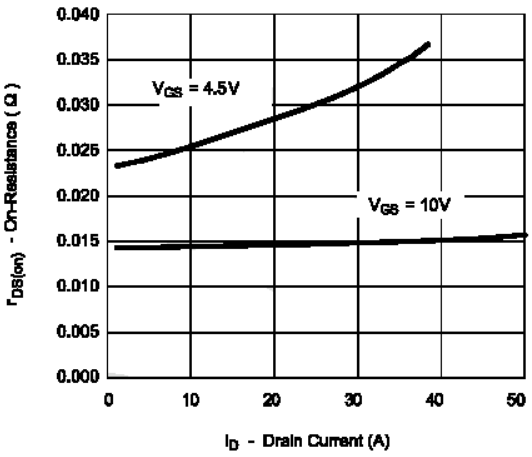


Typical Characteristics (T_J =25℃ Noted)

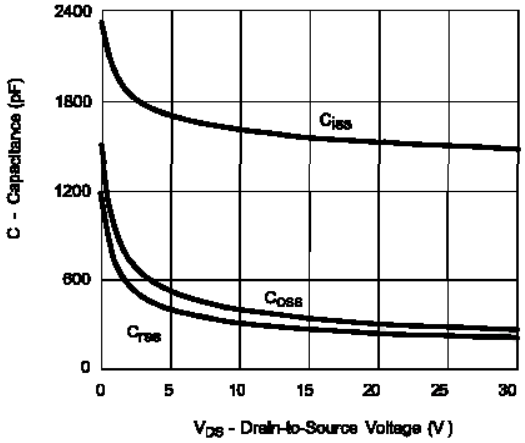
Transfer Characteristics



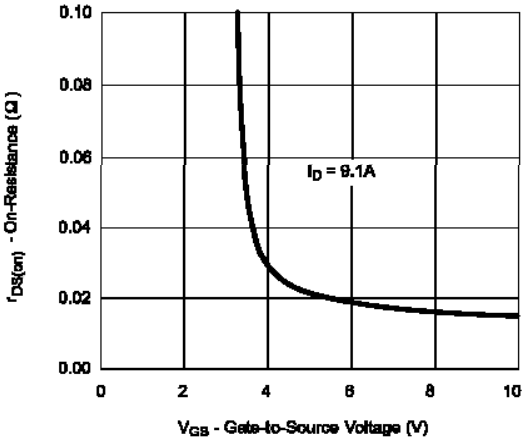
On-Resistance vs. Drain Current



Capacitance



On-Resistance vs. Gate-to-Source Voltage



Threshold Voltage