

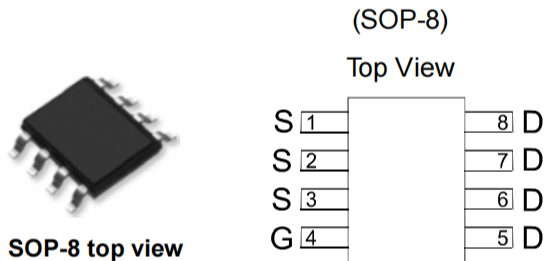
GENERAL FEATURES

- $V_{DS} = -30V, I_D = -9A$
- $R_{DS(ON)} \leq 20m\Omega @ V_{GS} = -10V$
- $R_{DS(ON)} \leq 35m\Omega @ V_{GS} = -4.5V$

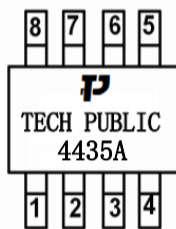
Application

- Load/Power Switching
- Interfacing Switching
- Logic Level Shift

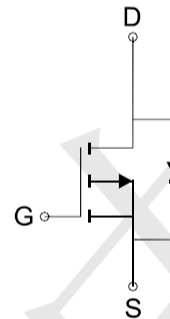
Package and Pin Configuration



Marking:



Circuit diagram



P-Channel MOSFET

Absolute Maximum Ratings ($T_A = 25^\circ C$ Unless Otherwise Noted)

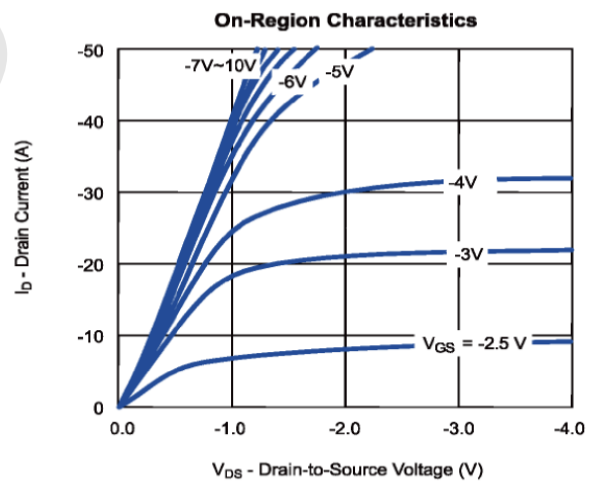
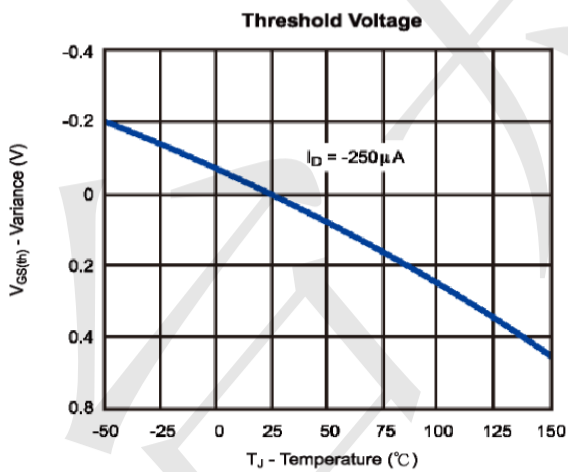
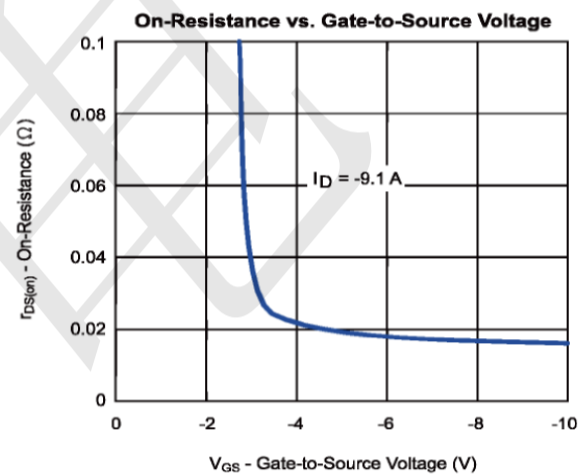
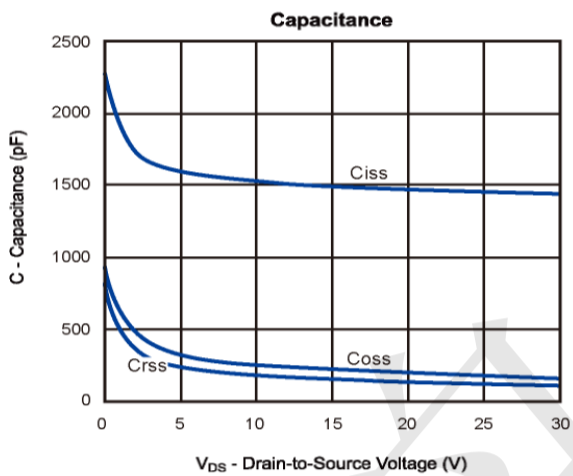
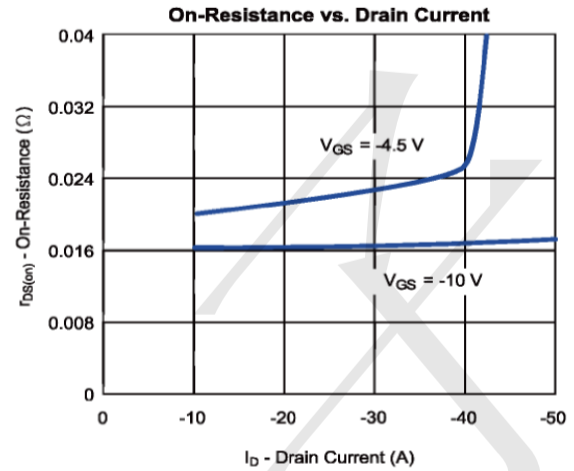
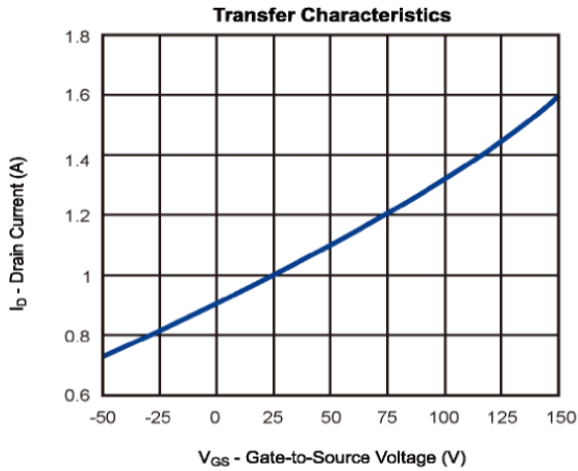
Parameter	Symbol	Maximum Ratings	Unit
Drain-Source Voltage	V_{DS}	-30	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	I_D	$T_A = 25^\circ C$	A
		$T_A = 70^\circ C$	
Pulsed Drain Current	I_{DM}	-35	A
Maximum Power Dissipation	P_D	$T_A = 25^\circ C$	W
		$T_A = 70^\circ C$	
Operating Junction Temperature	T_J	-55 to 150	$^\circ C$
Thermal Resistance-Junction to Ambient*	$R_{\theta JA}$	50	$^\circ C/W$

Electrical Characteristics (TA=25°C Unless Otherwise Specified)

Symbol	Parameter	Limit	Min	Typ	Max	Unit
STATIC						
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} , I _D =-250 μ A	-1	-1.4	-3	V
I _{GSS}	Gate Leakage Current	V _{DS} =0V, V _{GS} = $\pm$ 20V			$\pm$ 100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =-30V, V _{GS} =0V			-1	μ A
I _{D(ON)}	On-State Drain Current ^a	V _{DS} =-5V, V _{GS} =-10V	-30			A
R _{DS(ON)}	Drain-Source On-State Resistance ^a	V _{GS} =-10V, I _D =-9.1A		15	20	m Ω
		V _{GS} =-4.5V, I _D =-6.9A		25	35	
V _{SD}	Diode Forward Voltage	I _S =-2.1A, V _{GS} =0V		-0.8	-1.2	V
DYNAMIC						
Q _g	Total Gate Charge	V _{DS} =-15V, V _{GS} =-10V, I _D =-9.1A		38		nC
Q _{gs}	Gate-Source Charge			7.7		
Q _{gd}	Gate-Drain Charge			9		
R _g	Gate Resistance	V _{GS} =0V, V _{DS} =0V, f=1MHz		6.9		Ω
C _{iss}	Input capacitance	V _{DS} =-15V, V _{GS} =0V, f=1MHz		1490		pF
C _{oss}	Output Capacitance			209		
C _{rss}	Reverse Transfer Capacitance			148		
t _{d(on)}	Turn-On Delay Time	V _{DD} =-15V, R _L =15 Ω I _D =-1A, V _{GEN} =-10V R _G =6 Ω		38.2		ns
t _r	Turn-On Rise Time			16.7		
t _{d(off)}	Turn-Off Delay Time			106		
t _f	Turn-Off Fall Time			24.1		

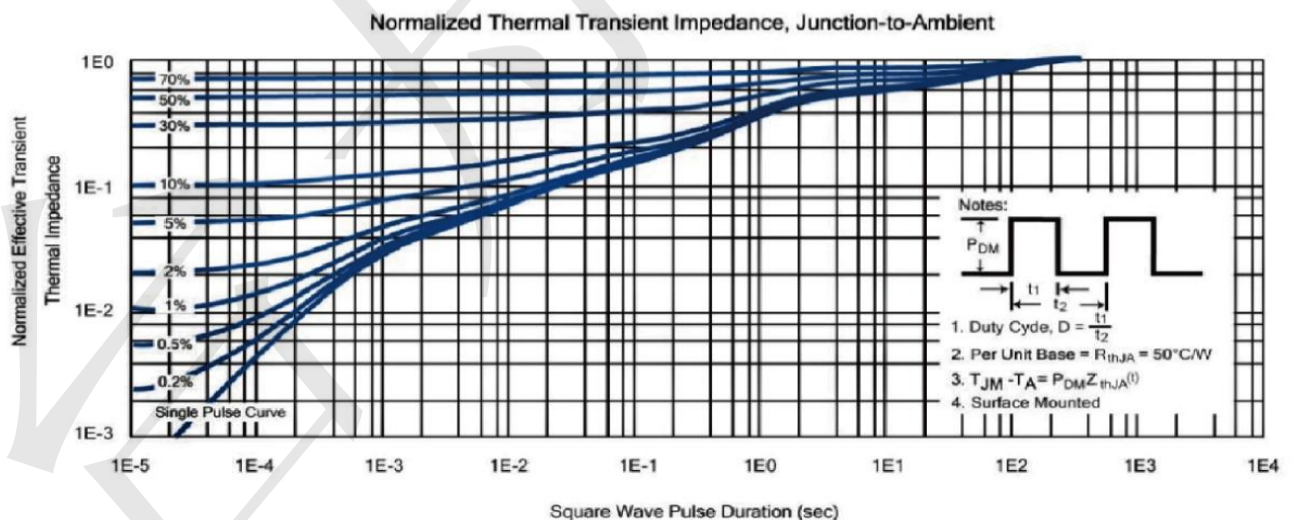
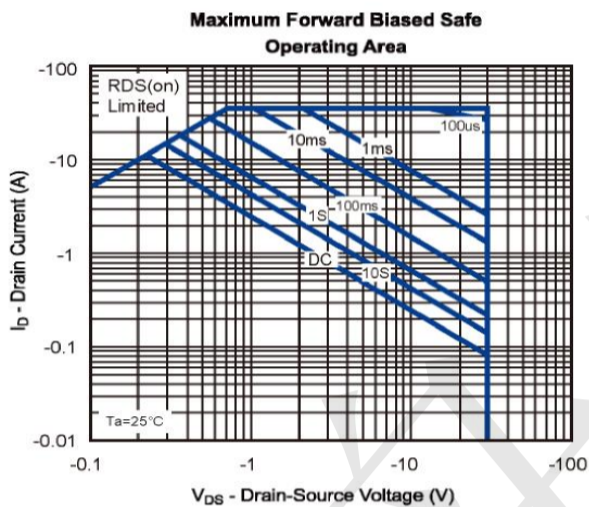
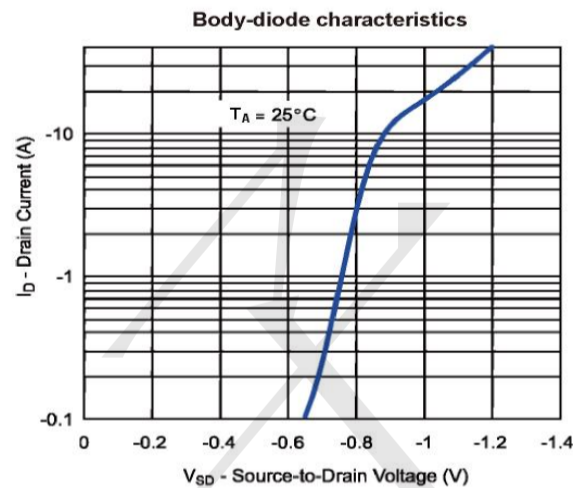
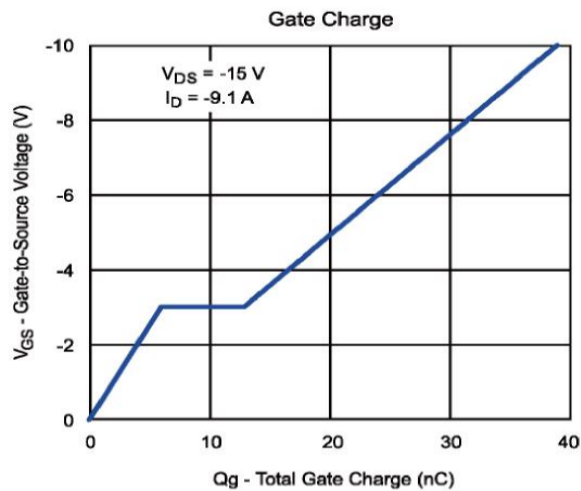
Typical Characteristics

($T_A = 25^\circ\text{C}$ Unless Otherwise Specified)

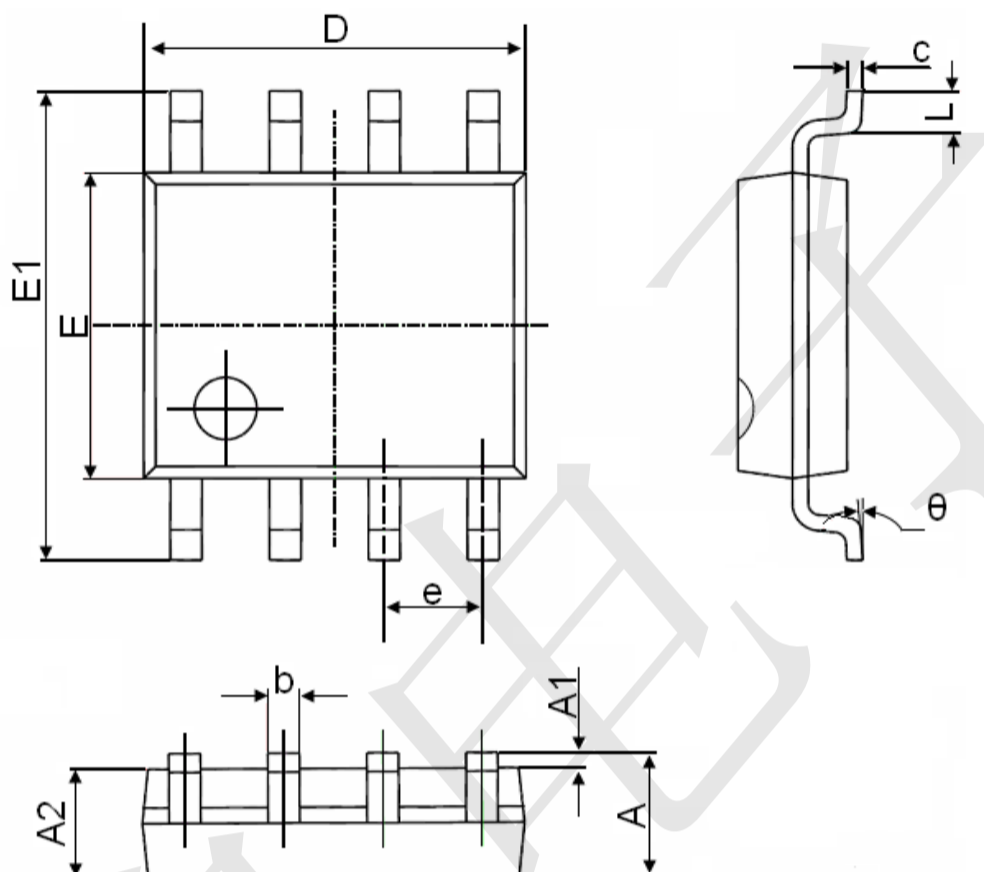


Typical Characteristics

($T_A = 25^\circ\text{C}$ Unless Otherwise Specified)



SOP-8 Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.350	1.750	0.053	0.069
A1	0.100	0.250	0.004	0.010
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.006	0.010
D	4.700	5.100	0.185	0.200
E	3.800	4.000	0.150	0.157
E1	5.800	6.200	0.228	0.244
e	1.270(BSC)		0.050(BSC)	
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°