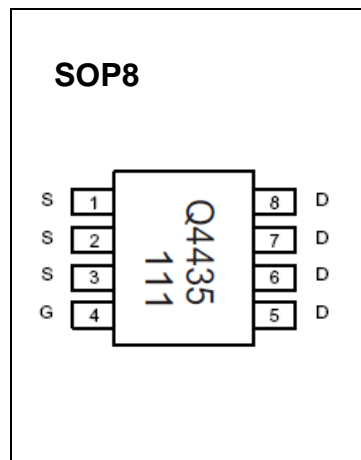
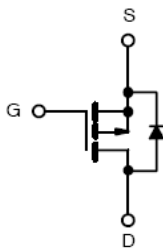


SOP8 Plastic-Encapsulate MOSFETS

CJQ4435 P-Channel MOSFET

APPLICATIONS

- Load Switches
- Battery Switch



Maximum ratings (T_a=25°C unless otherwise noted)

Parameter	Symbol	Value	Units
Drain-Source Voltage	V _{DS}	-30	V
Gate-Source Voltage	V _{GS}	±20	
Continuous Drain Current (t =10s) (note 1)	I _D	-9.1	A
Pulsed Drain Current	I _{DM}	-50	
Drain-Source Diode Forward Current (t =10s) (note 1)	I _S	-2	
Power Dissipation (t =10s)	P _D	1.4	W
Thermal Resistance from Junction to Ambient (t ≤10s) (note 1)	R _{θJA}	89	°C/W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55 ~+150	

Electrical characteristics (T_a=25°C unless otherwise noted)

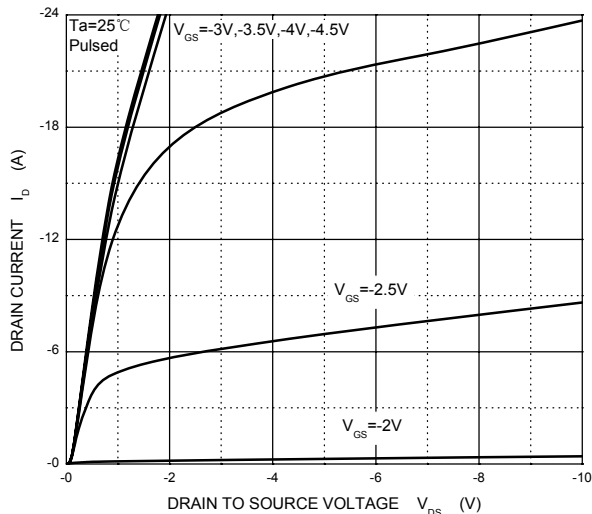
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Static Characteristics						
Drain Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} =0V, I _D =-250μA	-30			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-30V, V _{GS} =0V			-1	μA
Gate body Leakage	I _{GSS}	V _{DS} =0V, V _{GS} =±20V			±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =-250μA	-1		-3	V
Drain-Source on-state Resistance (note 2)	R _{DS(on)}	V _{GS} =-10V, I _D =-9.1A			24	mΩ
		V _{GS} =-4.5V, I _D =-6.9A			35	
Forward Transconductance (note 2)	g _{FS}	V _{DS} =-10V, I _D =-9.1A	20			S
Dynamic Characteristics (note 3)						
Input Capacitance	C _{iss}	V _{DS} =-15V, V _{GS} =0V, f =1MHz		1350		pF
Output Capacitance	C _{oss}			215		
Reverse Transfer Capacitance	C _{rss}			185		
Total Gate Charge	Q _g	V _{DS} =-15V, V _{GS} =-10V, I _D =-9.1A			50	nC
					25	
Gate-Source Charge	Q _{gs}	V _{DS} =-15V, V _{GS} =-4.5V, I _D =-9.1A		4		
Gate-Drain Charge	Q _{gd}			7.5		
Gate Resistance	R _g	f =1MHz		5.8		Ω
Turn-On Delay Time	t _{d(on)}	V _{DD} =-15V, R _L =15Ω I _D =-1A, V _{GEN} =-10V, R _G =1Ω			15	ns
Rise Time	t _r				15	
Turn-Off Delay Time	t _{d(off)}				70	
Fall Time	t _f				25	
Drain-Source Body Diode Characteristics						
Diode Forward Voltage	V _{SD}	I _S =-2A, V _{GS} =0V			-1.2	V

Notes:

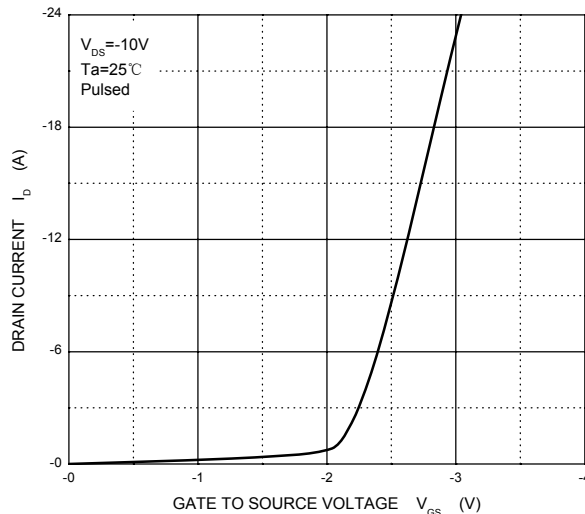
1. Surface mounted on 1"×1" FR4 board.
2. Pulse Test : Pulse Width≤300μs, Duty Cycle ≤2%.
3. Guaranteed by design, not subject to production testing.

CJQ4435

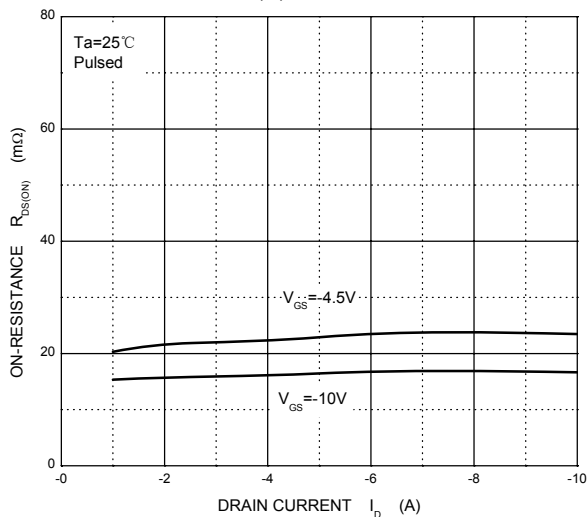
Output Characteristics



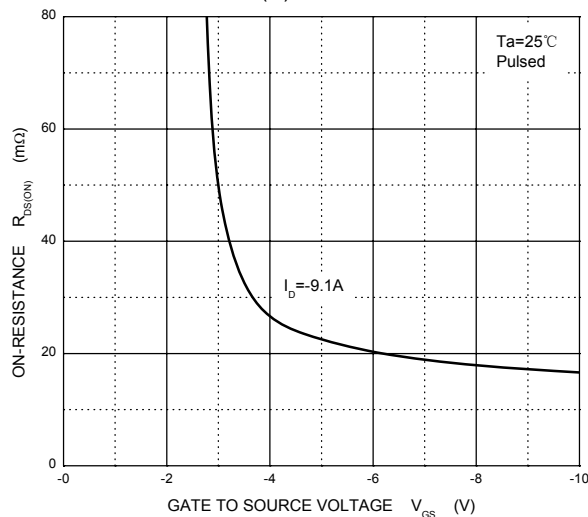
Transfer Characteristics



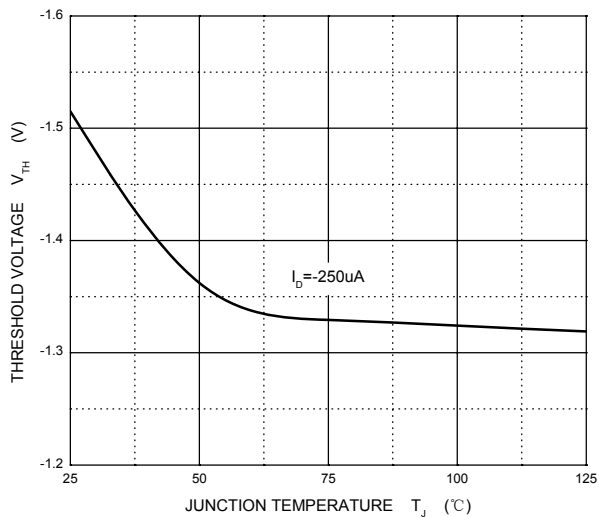
$R_{DS(ON)}$ — I_D



$R_{DS(ON)}$ — V_{GS}



Threshold Voltage



I_S — V_{SD}

