

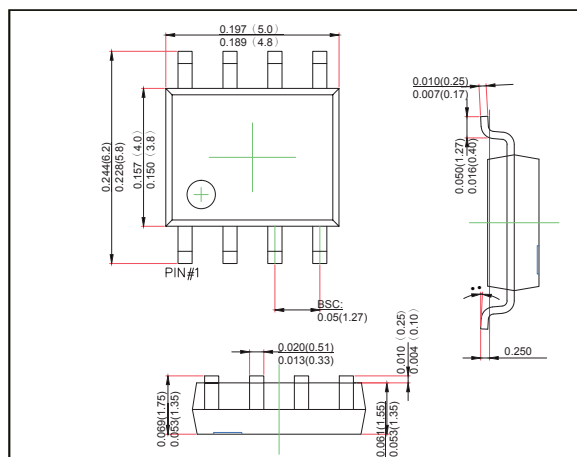
SOP-8 Plastic-Encapsulate MOSFETS

Features

- RDS(on) = 0.027 Ω @ VGS = 4.5 V
- RDS(on) = 0.036 Ω @ VGS = 2.5 V.
- Dual N-Channel MOSFET

MECHANICAL DATA

- Case style:SOP8 molded plastic
- Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

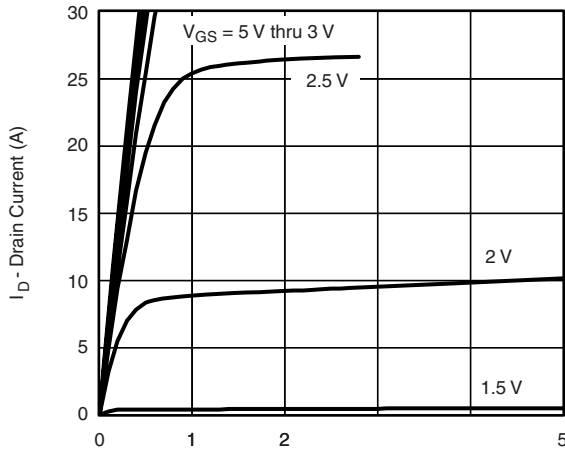
Parameter	Symbol	10 sec	Steady State	Unit
Drain-Source Voltage	V _{DS}	20		V
Gate-Source Voltage	V _{GS}	±10		V
Continuous Drain Current	I _D	8.2	6.2	A
Pulsed Drain Current	I _{DM}	30		A
Maximum Power Dissipation @T _A = 25°C	P _D	2.0	1.14	W
@T _A = 70°C		1.3	0.72	W
Thermal Resistance,Junction-to-Ambient	R _{θJA}	110		°C/W
Jumction temperature and Storage temperature	T _J ,T _{stg}	-55 to +150		°C

MOSFET ELECTRICAL CHARACTERISTICS $T_A=25^{\circ}\text{C}$ unless otherwise specified

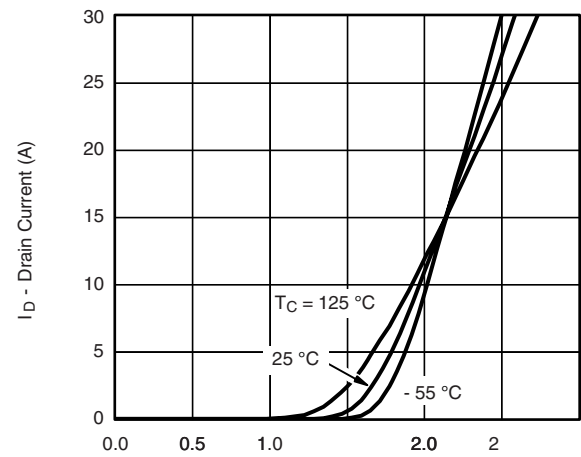
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DS}	$V_{GS} = 0\text{ V}$, $I_D = 250\text{ }\mu\text{ A}$	20			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 20\text{ V}$, $V_{GS} = 0\text{ V}$			1	μA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}$, $I_D = 250\mu\text{A}$	0.5		1.5	V
Gate-Body Leakage	I_{GSS}	$V_{DS} = 0\text{ V}$, $V_{GS} = \pm 8\text{ V}$			± 100	nA
Drain-Source On-State Resistance *	$R_{DS(on)}$	$V_{GS} = 4.5\text{ V}$, $I_D = 8.5\text{ A}$		0.020	0.027	Ω
		$V_{GS} = 2.5\text{ V}$, $I_D = 3.3\text{ A}$		0.029	0.036	
On-State Drain Current *	$I_{D(on)}$	$V_{DS} = 5\text{ V}$, $V_{GS} = 4.5\text{ V}$	30			A
Forward Transconductance *	g_{fs}	$V_{DS} = 15\text{ V}$, $I_D = 8.2\text{ A}$		29		S
Total Gate Charge	Q_g	$V_{DS} = 10\text{ V}$, $V_{GS} = 4.5\text{ V}$, $I_D = 8.2\text{ A}$		11	20	nC
Gate-Source Charge	Q_{gs}			2.5		
Gate-Drain Charge	Q_{gd}			3.2		
Turn-On Delay Time	$t_{d(on)}$	$V_{DD} = 10\text{ V}$, $I_D = 1\text{ A}$, $V_{GS} = 4.5\text{ V}$, $R_G = 6\text{ }\Omega$, $R_L = 10\text{ }\Omega$		36	57	ns
Rise Time	t_r			52	78	
Turn-Off Delay Time	$t_{d(off)}$			32	50	
Fall Time	t_f			15	25	
Maximum Continuous Drain-Source Diode Forward Current	I_S				0.95	A
Diode Forward Voltage *	V_{SD}	$I_S = 1.7\text{ A}$, $V_{GS} = 0\text{ V}$		0.8	1.2	V

* Pulse test; pulse width $\leq 300 \mu\text{s}$, duty cycle $\leq 2\%$.

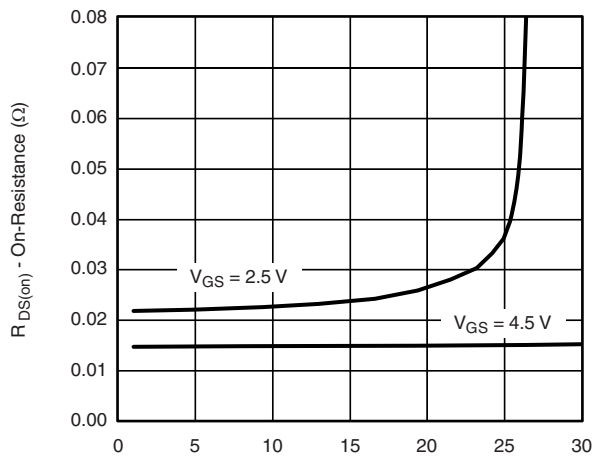
RATINGS AND CHARACTERISTIC CURVES



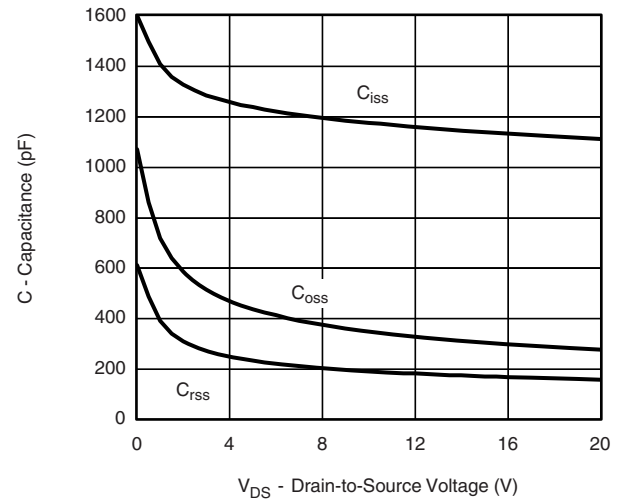
Output Characteristics



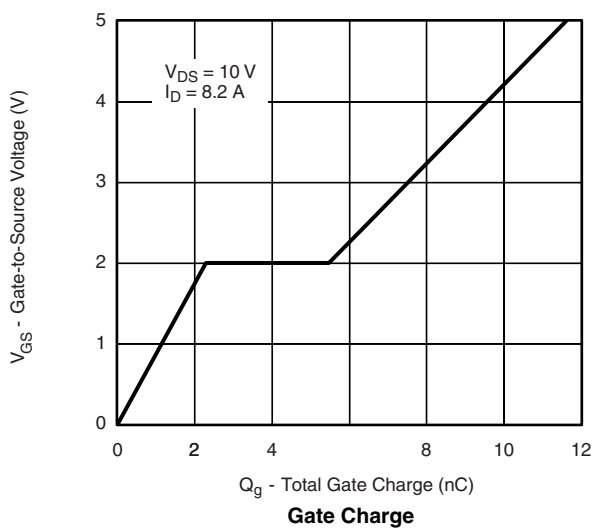
Transfer Characteristics



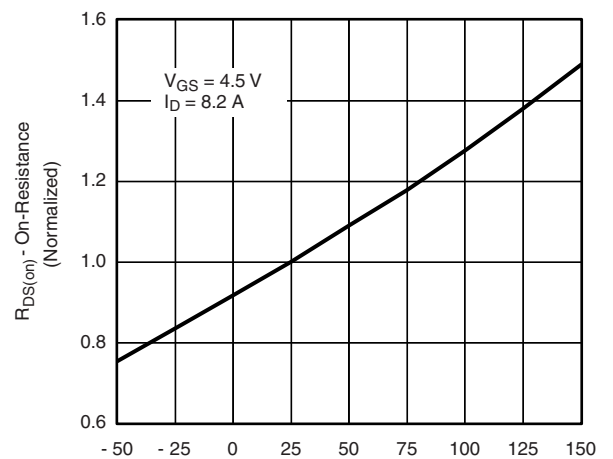
On-Resistance vs. Drain Current



Capacitance

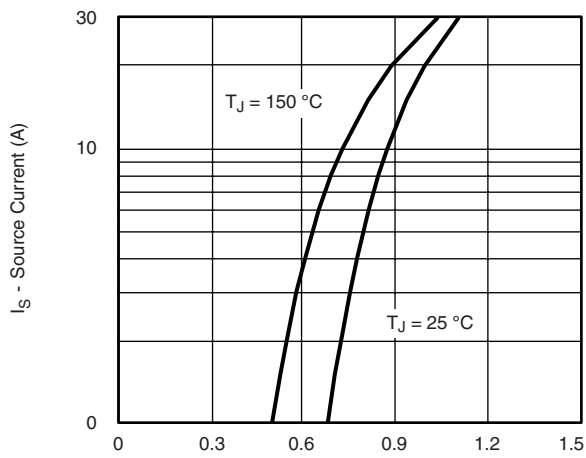


Gate Charge

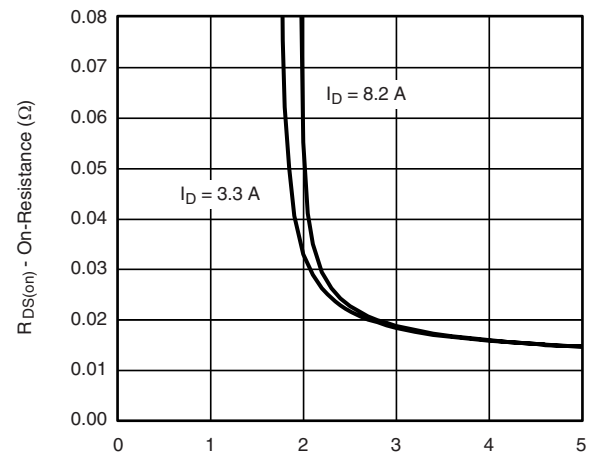


On-Resistance vs. Junction Temperature

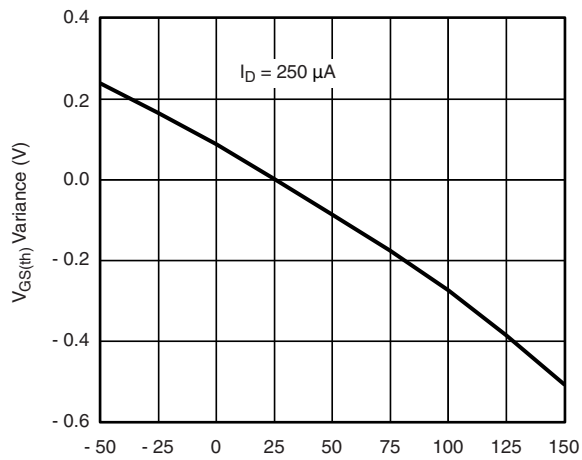
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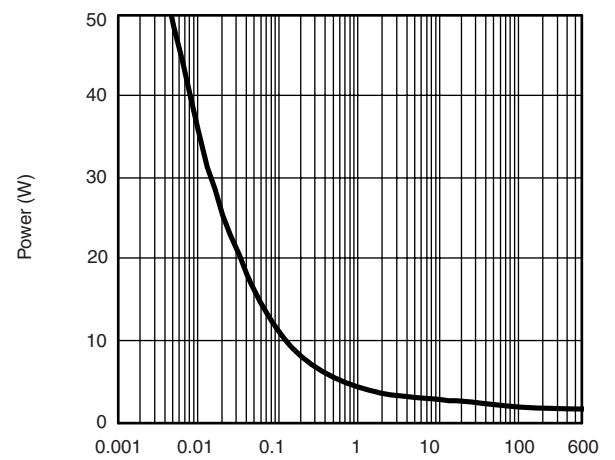
Source-Drain Diode Forward Voltage



On-Resistance vs. Gate-to-Source Voltage



Threshold Voltage



Single Pulse Power

RATINGS AND CHARACTERISTIC CURVES

