

ABSOLUTE MAXIMUM RATINGS

Gate-Source/Gate-Drain Voltage -40V
 Forward Gate Current 50 mA
 Storage Temperature : (2N Prefix) -65 to 175°C
 (PN, SST Prefix) -55 to 150°C
 Operating Junction Temperature :
 (2N Prefix) -55 to 175°C
 (PN, SST Prefix) -55 to 150°C

Lead Temperature ($1/16$ " from case for 10 sec.) 300°C
 Power Dissipation (case 25°C) :
 (2N Prefix)^a 300 mW
 (PN, SST Prefix)^b 350 mW

Notes

- a. Derate 2 mW/°C above 25°C
 b. Derate 2.8 mW/°C above 25°C

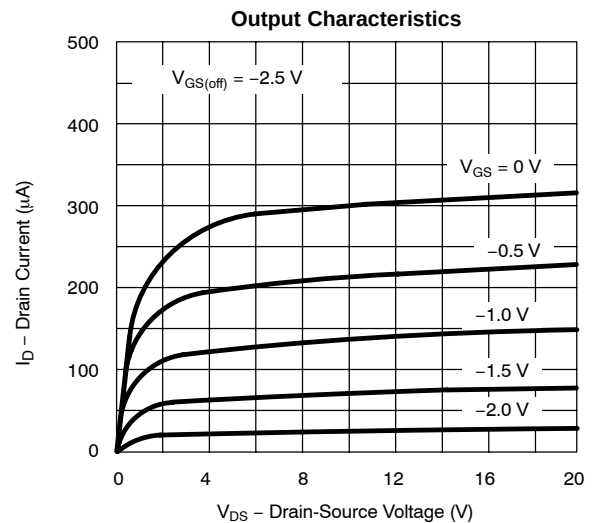
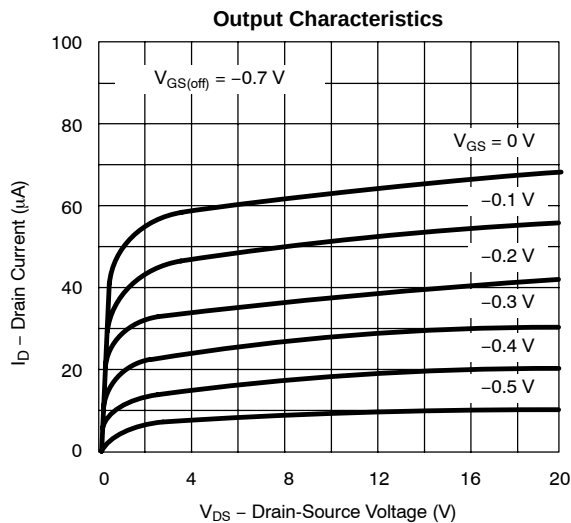
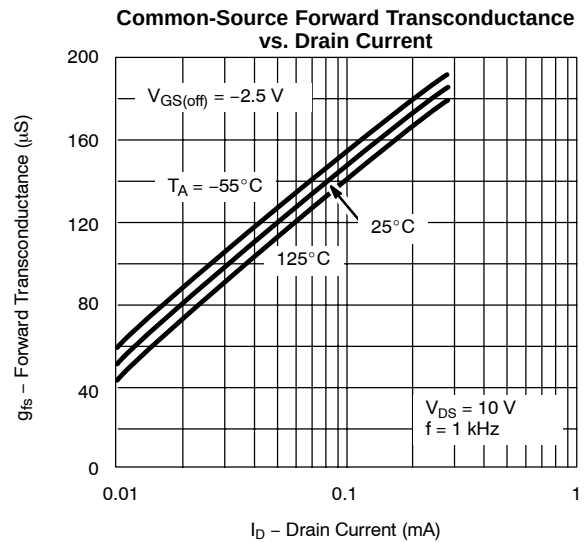
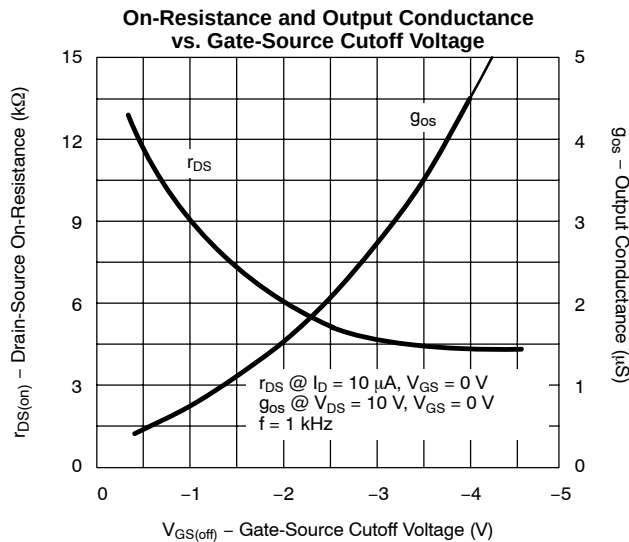
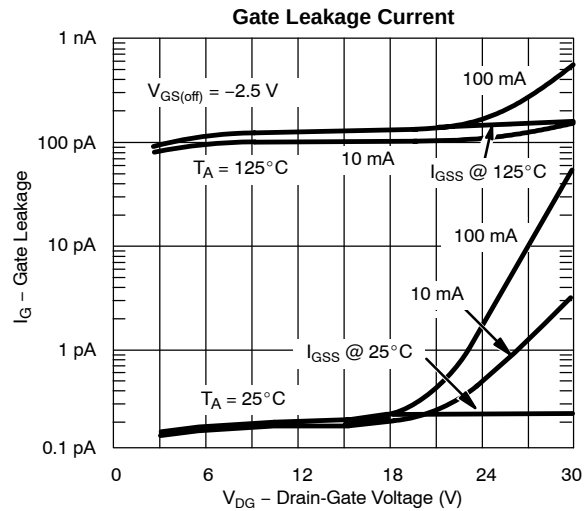
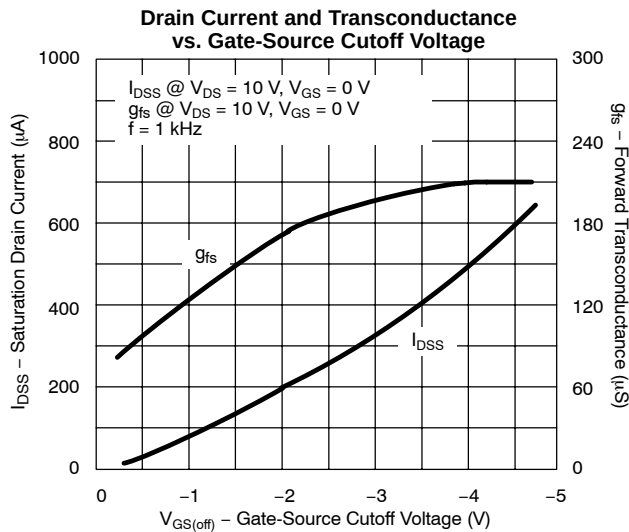
SPECIFICATIONS ($T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

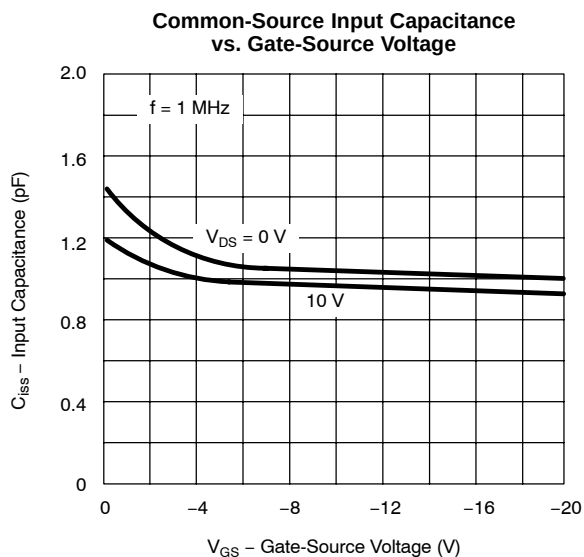
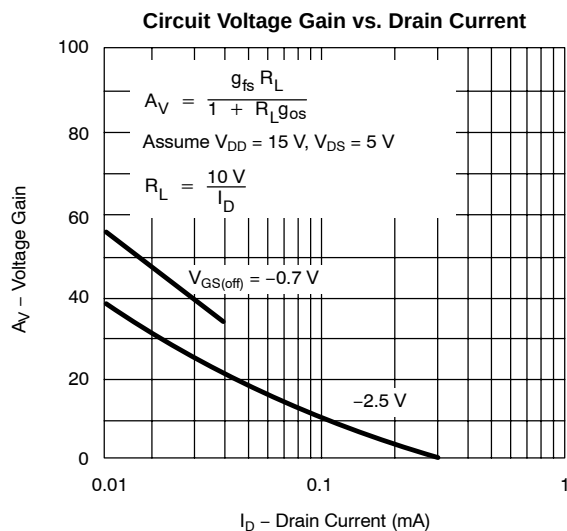
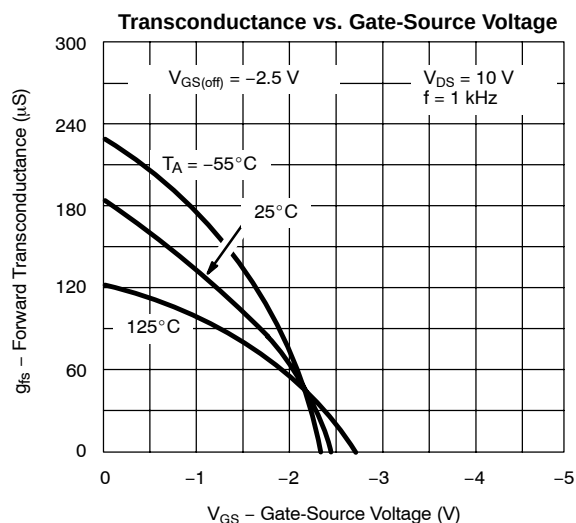
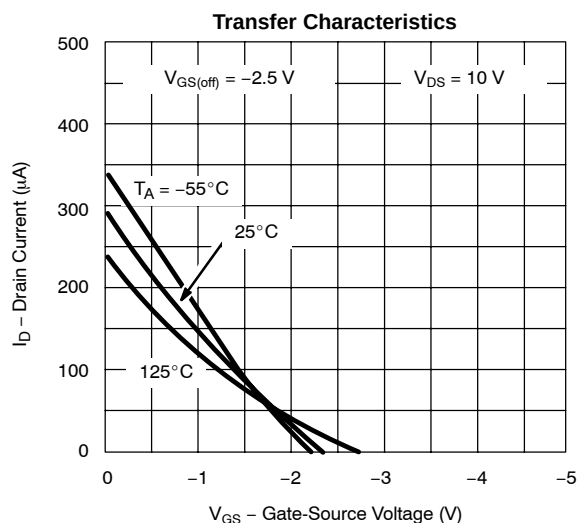
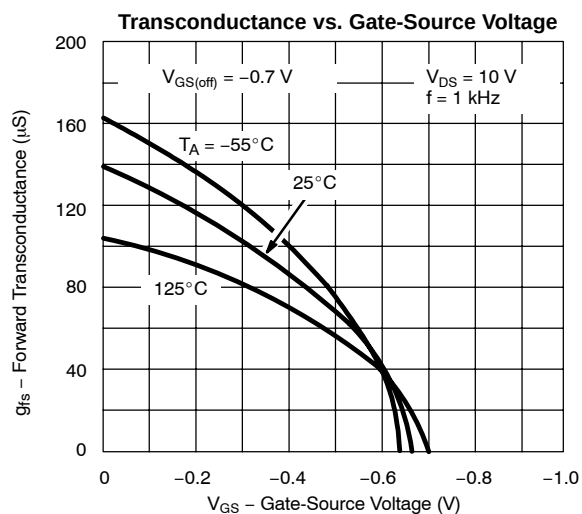
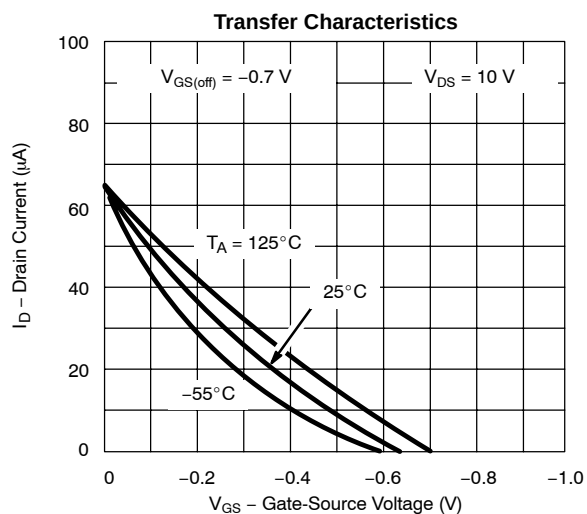
Parameter	Symbol	Test Conditions		Typ ^a	Limits						Unit
					4117		4118		4119		
					Min	Max	Min	Max	Min	Max	
Static											
Gate-Source Breakdown Voltage	V _{(BR)GSS}	I _G = −1 μA , V _{DS} = 0 V		−70	−40		−40		−40		V
Gate-Source Cutoff Voltage	V _{GS(off)}	V _{DS} = 10 V, I _D = 1 nA			−0.6	−1.8	−1	−3	−2	−6	
Saturation Drain Current	I _{DSS}	V _{DS} = 10 V, V _{GS} = 0 V			30	90	80	240	200	600	μA
Gate Reverse Current	I _{GSS}	V _{GS} = −20 V V _{DS} = 0 V	2N	−0.2		−1		−1		−1	pA
		V _{GS} = −20 V V _{DS} = 0 V T _A = 150°C		−0.4		−2.5		−2.5		−2.5	nA
		V _{GS} = −10 V V _{DS} = 0 V	PN	−0.2		−1		−1		−1	pA
			SST	−0.2		−10		−10		−10	
		V _{GS} = −10 V V _{DS} = 0 V T _A = 100°C	PN/SST	−0.03		−2.5		−2.5		−2.5	nA
Gate Operating Current ^b	I _G	V _{DG} = 15 V, I _D = 30 μA		−0.2							pA
Drain Cutoff Current ^b	I _{D(off)}	V _{DS} = 10 V, V _{GS} = −8 V		0.2							
Gate-Source Forward Voltage ^b	V _{GS(F)}	I _G = 1 mA , V _{DS} = 0 V		0.7							V
Dynamic											
Common-Source Forward Transconductance	g _{fs}	V _{DS} = 10 V, V _{GS} = 0 V f = 1 kHz			70	210	80	250	100	330	μS
Common-Source Output Conductance	g _{os}					3		5		10	
Common-Source Input Capacitance	C _{iss}	V _{DS} = 10 V V _{GS} = 0 V f = 1 MHz	2N/PN	1.2		3		3		3	pF
			SST	1.2							
Common-Source Reverse Transfer Capacitance	C _{rss}		2N/PN	0.3		1.5		1.5		1.5	
			SST	0.3							
Equivalent Input Noise Voltage ^b	e _n	V _{DS} = 10 V, V _{GS} = 0 V f = 1 kHz		15							nV/ √Hz

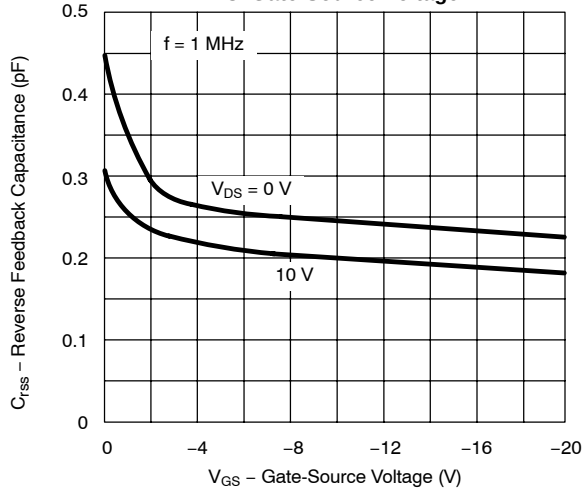
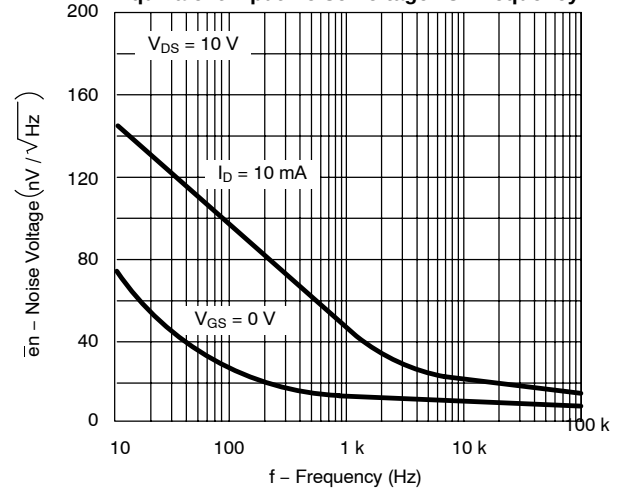
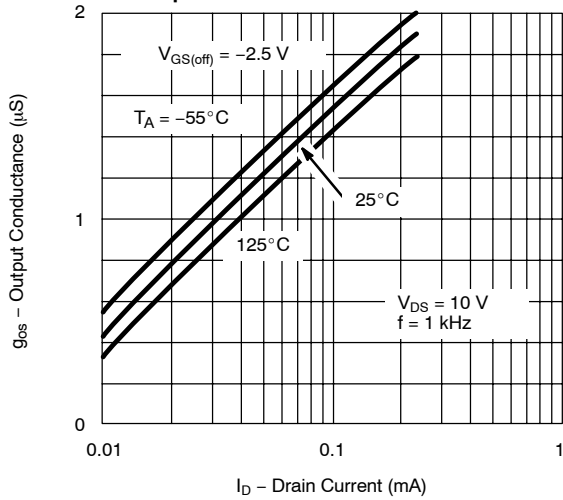
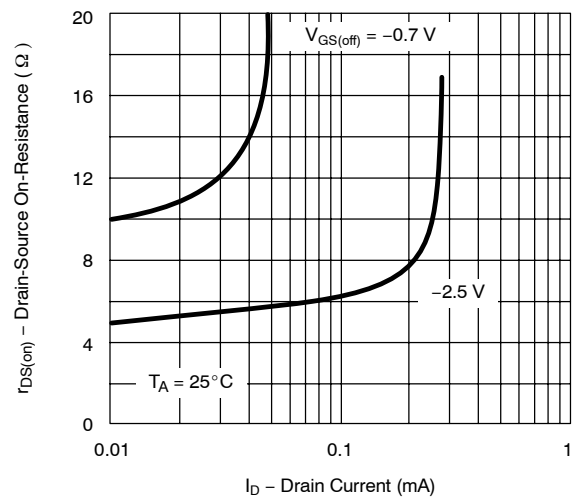
Notes

- a. Typical values are for DESIGN AID ONLY, not guaranteed nor subject to production testing.
 b. This parameter not registered with JEDEC.

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**TYPICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)**

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**TYPICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)****Common-Source Reverse Feedback Capacitance vs. Gate-Source Voltage****Equivalent Input Noise Voltage vs. Frequency****Output Conductance vs. Drain Current****On-Resistance vs. Drain Current**



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