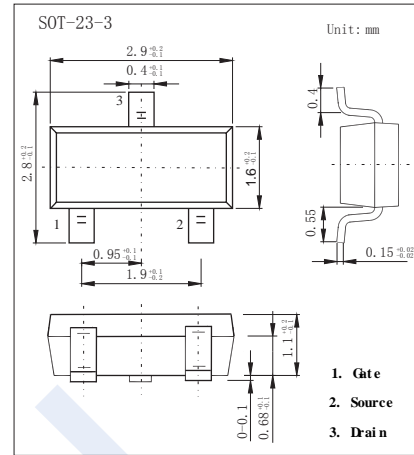
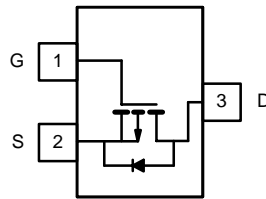


P-Channel Enhancement MOSFET

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■ Features

- $V_{DS} (V) = -20V$
- $I_D = -4.7A$ ($V_{GS} = -4.5V$)
- $R_{DS(ON)} < 39m\Omega$ ($V_{GS} = -4.5V$)
- $R_{DS(ON)} < 52m\Omega$ ($V_{GS} = -2.5V$)
- $R_{DS(ON)} < 68m\Omega$ ($V_{GS} = -1.8V$)



■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	5 sec	Steady State	Unit	
Drain-Source Voltage	V_{DS}	-20		V	
Gate-Source Voltage	V_{GS}	± 8			
Continuous Drain Current ($T_J = 150^\circ C$) *1	I_D	$T_a = 25^\circ C$	-4.7	-3.7	A
		$T_a = 70^\circ C$	-3.8	-2.9	
Pulsed Drain Current	I_{DM}	-20		W	
Power Dissipation	P_D	$T_a = 25^\circ C$	1.25		0.75
		$T_a = 70^\circ C$	0.8	0.48	
Thermal Resistance.Junction- to-Ambient $t \leq 5$ sec Steady State	R_{thJA}	100		$^\circ C/W$	
		166			
Thermal Resistance.Junction- to-Foot	R_{thJF}	50		$^\circ C$	
Junction Temperature	T_J	150			
Storage Temperature Range	T_{stg}	-55 to 150			

*1 Surface Mounted on 1" x 1" FR4 Board.

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■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{DSS}	I _D =-250 μA, V _{GS} =0V	-20			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-16V, V _{GS} =0V			-1	μA
		V _{DS} =-16V, V _{GS} =0V, T _J =55°C			-10	
Gate-Body leakage current	I _{GSS}	V _{DS} =0V, V _{GS} =±8V			±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} I _D =-250 μA	-0.4		-1.0	V
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =-4.5V, I _D =-4.7A		31	39	mΩ
		V _{GS} =-2.5V, I _D =-4.1A		41	52	
		V _{GS} =-1.8V, I _D =-2A		54	68	
On state drain current	I _{D(ON)}	V _{GS} =-4.5V, V _{DS} =-5V	-20			A
Forward Transconductance	g _{FS}	V _{DS} =-5V, I _D =-4.7A		16		S
Input Capacitance	C _{iss}	V _{GS} =0V, V _{DS} =-10V, f=1MHz *1		1020		pF
Output Capacitance	C _{oss}			191		
Reverse Transfer Capacitance	C _{rss}			140		
Total Gate Charge	Q _g	V _{GS} =-4.5V, V _{DS} =-10V, I _D =-4.7A *1		12.5	19	nC
Gate Source Charge	Q _{gs}			1.7		
Gate Drain Charge	Q _{gd}			3.3		
Turn-On DelayTime	t _{d(on)}	V _{GS} =-4.5V, V _{DS} =-10V, R _L =10Ω, R _{GEN} =6Ω I _D =-1.0A *1		25	40	ns
Turn-On Rise Time	t _r			43	65	
Turn-Off DelayTime	t _{d(off)}			71	110	
Turn-Off Fall Time	t _f			48	75	
Maximum Body-Diode Continuous Current	I _S	5 sec			-1.0	A
		Steady State			-0.6	
Diode Forward Voltage	V _{SD}	I _S =-1.0A, V _{GS} =0V		-0.7	-1.2	V

*1Pulse test: PW ≤ 300us duty cycle ≤ 2%.

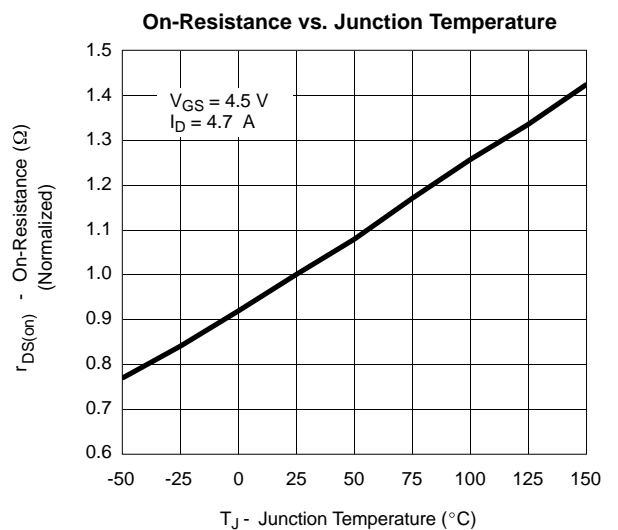
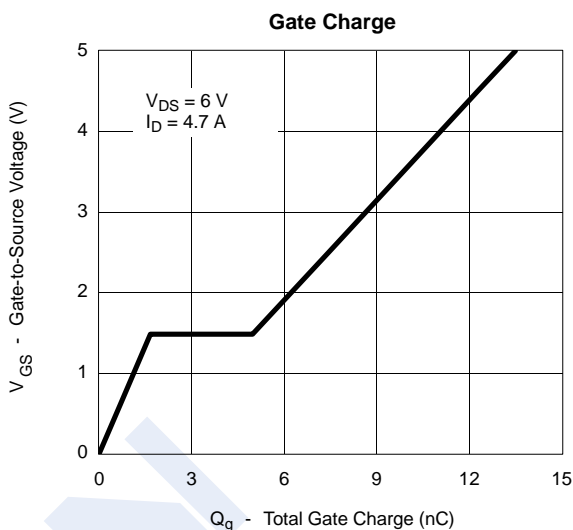
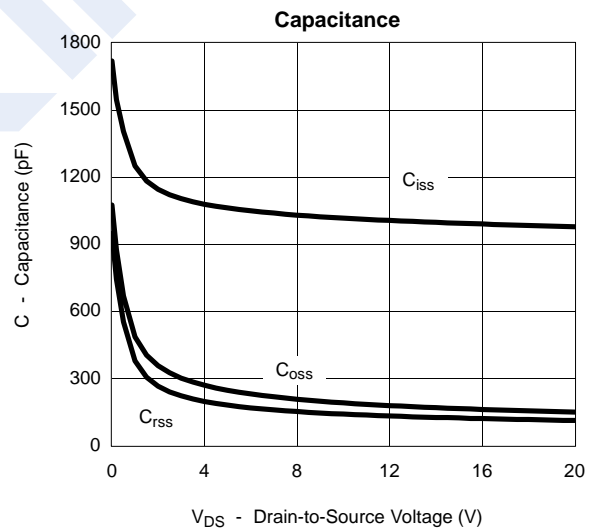
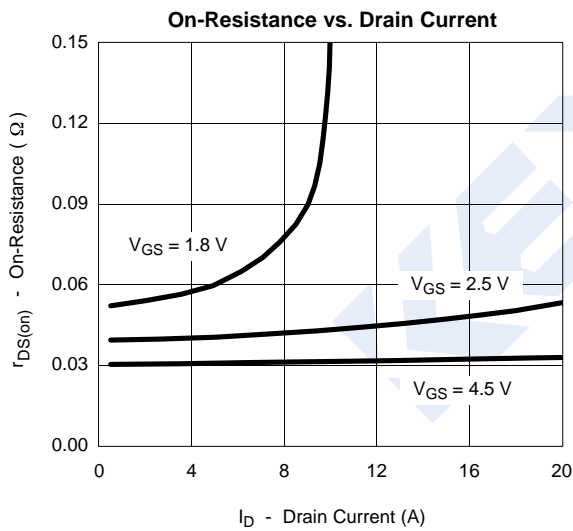
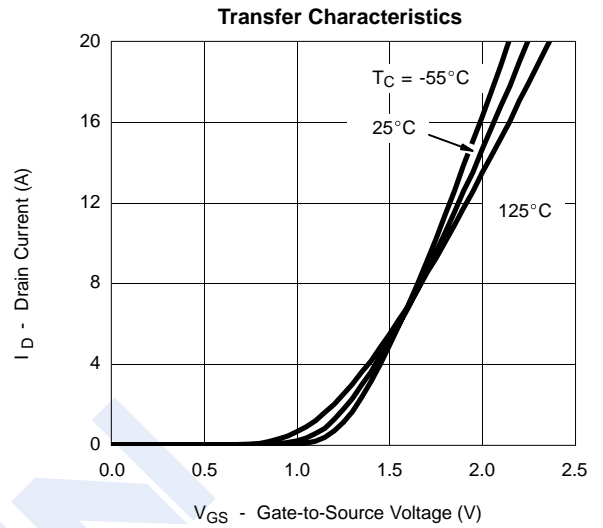
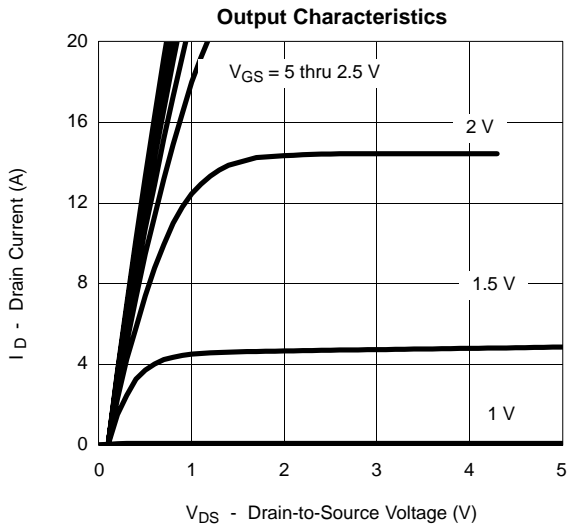
■ Marking

Marking	D3*
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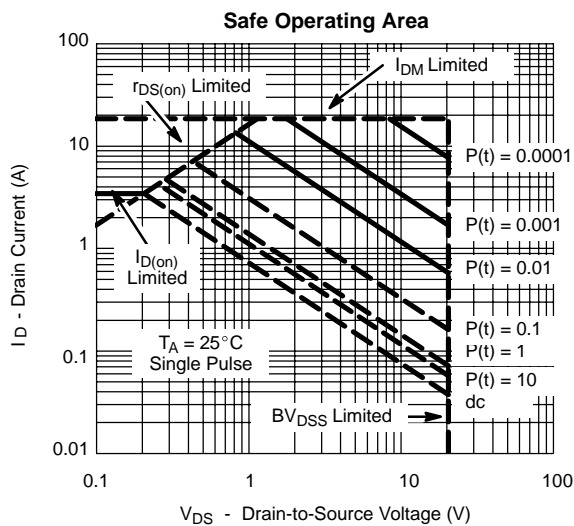
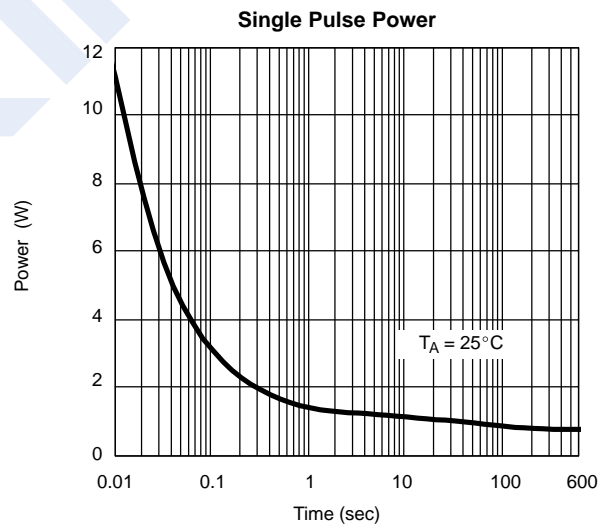
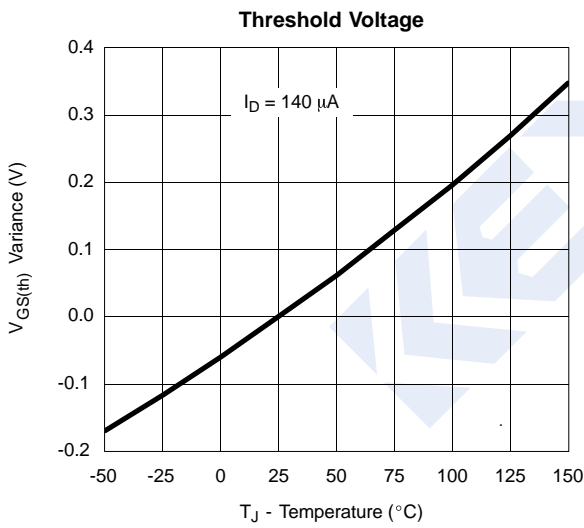
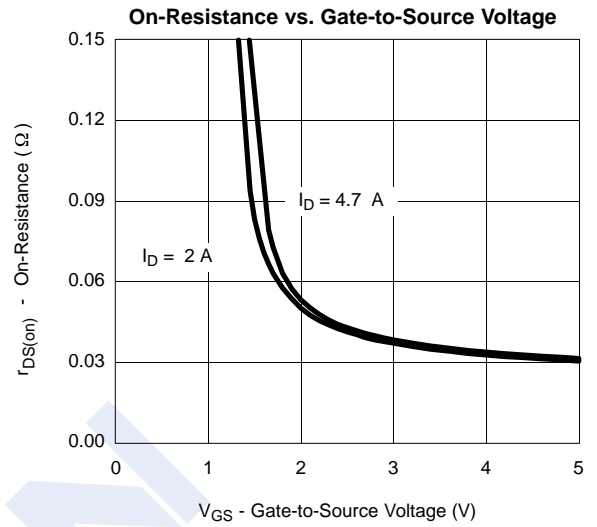
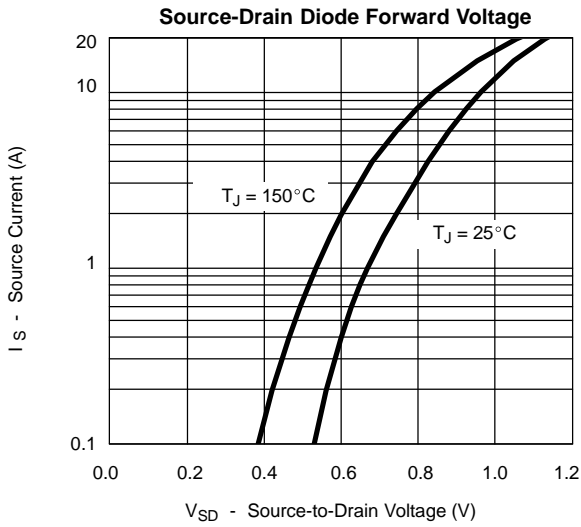
Typical Characteristics



P-Channel Enhancement MOSFET

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■ Typical Characteristics



P-Channel Enhancement MOSFET

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■ Typical Characteristics

