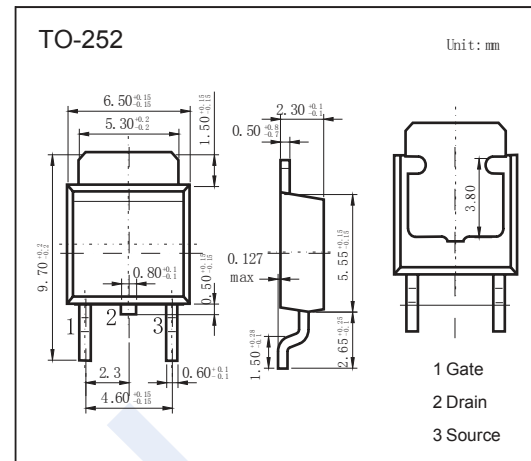
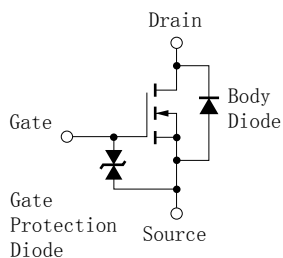


N-Channel MOSFET

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■ Features

- $V_{DS} = 60V$
- $I_D = 36A$ ($V_{GS} = 10V$)
- $R_{DS(ON)} < 15m\Omega$ ($V_{GS} = 10V$)
- $R_{DS(ON)} < 22m\Omega$ ($V_{GS} = 4V$)
- Low C_{iss} : $C_{iss} = 3200pF$ TYP.



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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V _{DS}	60	V
Gate-Source Voltage	V _{GS}	±20	
Continuous Drain Current	I _D	36	A
Pulsed Drain Current (Note.1)	I _{DM}	144	
Single Avalanche Current (Note.2)	I _{AS}	35	
Power Dissipation T _c = 25℃ T _a = 25℃	P _D	40	W
		1	
Single Avalanche Energy (Note.2)	E _{AS}	123	mJ
Junction Temperature	T _J	150	℃
Storage Temperature Range	T _{stg}	-55 to 150	

Note.1: $PW \leq 10 \mu s$, Duty Cycle $\leq 1 \%$

Note.2: Starting $T_J = 25\text{ }^{\circ}\text{C}$, $V_{DD} = 150\text{ V}$, $R_G = 25\text{ }\Omega$, $V_{GS} = 20\text{ V} \rightarrow 0\text{ V}$

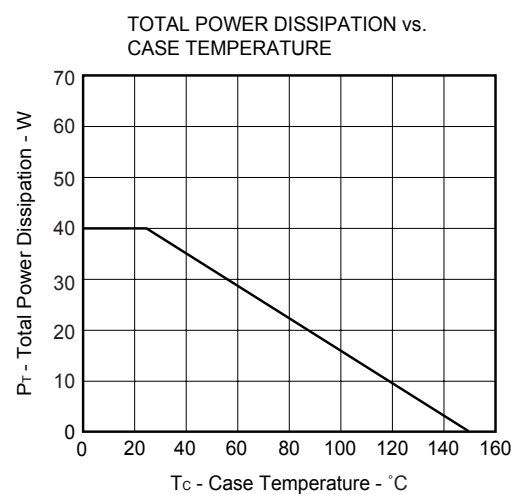
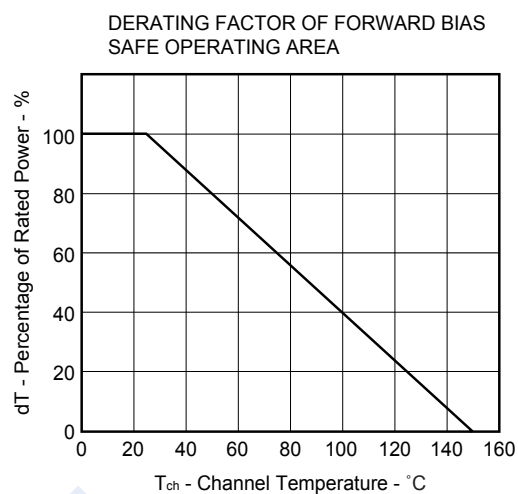
N-Channel MOSFET

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■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DS}	$I_D=250\mu A$, $V_{GS}=0V$	60			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=60V$, $V_{GS}=0V$			10	μA
Gate-Body Leakage Current	I_{GSS}	$V_{DS}=0V$, $V_{GS}=\pm 20V$			± 10	μA
Gate to Source Cut-off Voltage	$V_{GS(off)}$	$V_{DS}=10V$, $I_D=1mA$	1.5		2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$, $I_D=18A$			15	m Ω
		$V_{GS}=4V$, $I_D=18A$			22	
Forward Transconductance	g_{FS}	$V_{DS}=10V$, $I_D=18A$	13	27		S
Input Capacitance	C_{iss}	$V_{GS}=0V$, $V_{DS}=10V$, $f=1MHz$		3200		pF
Output Capacitance	C_{oss}			520		
Reverse Transfer Capacitance	C_{rss}			270		
Total Gate Charge	Q_g	$V_{GS}=10V$, $V_{DS}=48V$, $I_D=36A$		61		nC
Gate Source Charge	Q_{gs}			8.2		
Gate Drain Charge	Q_{gd}			17		
Turn-On DelayTime	$t_{d(on)}$	$V_{DD}=30V$, $I_D=18A$, $V_{GS}=10V$, $R_G=10\Omega$		36		ns
Turn-On Rise Time	t_r			310		
Turn-Off DelayTime	$t_{d(off)}$			170		
Turn-Off Fall Time	t_f			180		
Body Diode Reverse Recovery Time	t_{rr}	$I_F=36A$, $V_{GS}=0$, $di/dt=100A/\mu s$		48		nC
Body Diode Reverse Recovery Charge	Q_{rr}			89		
Diode Forward Voltage	V_{SD}	$I_F=36A$, $V_{GS}=0V$		1		V

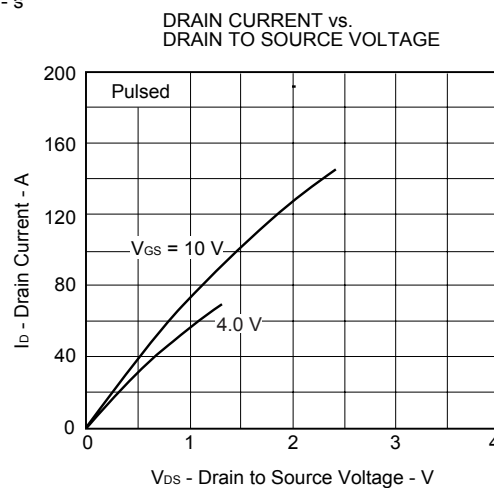
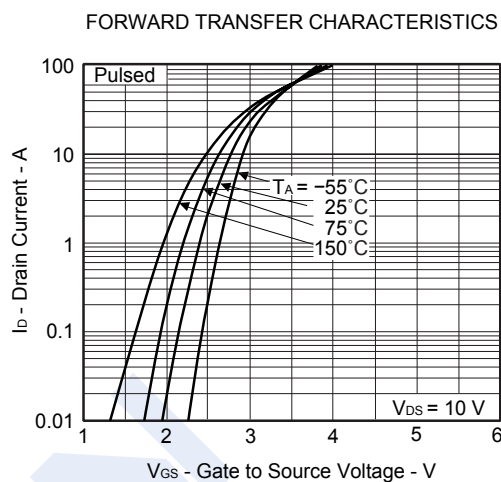
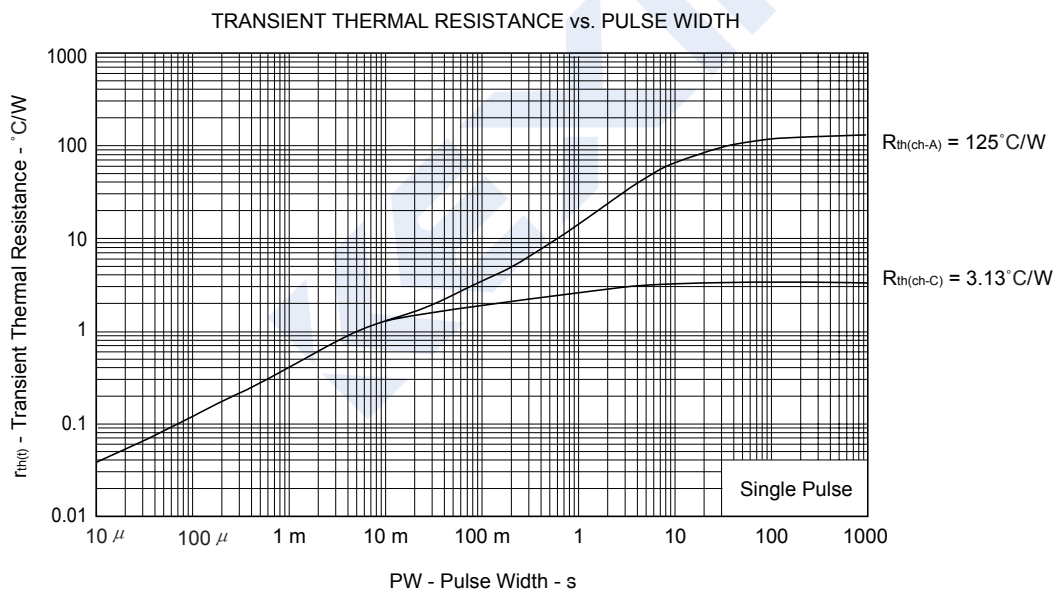
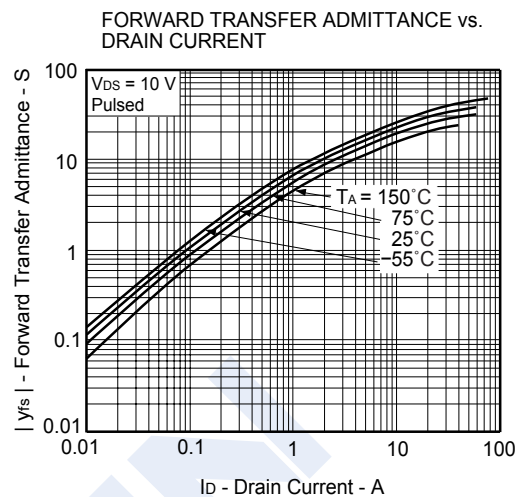
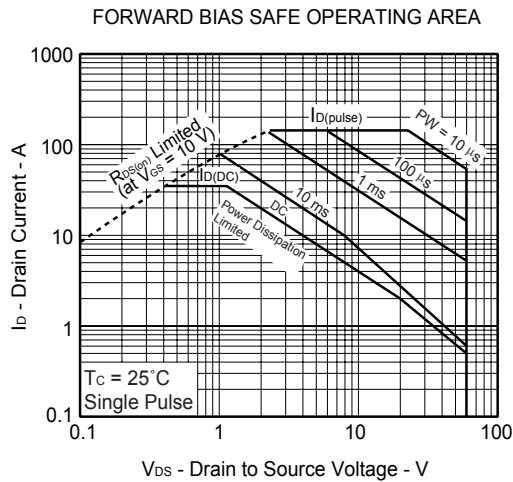
■ Typical Characteristics



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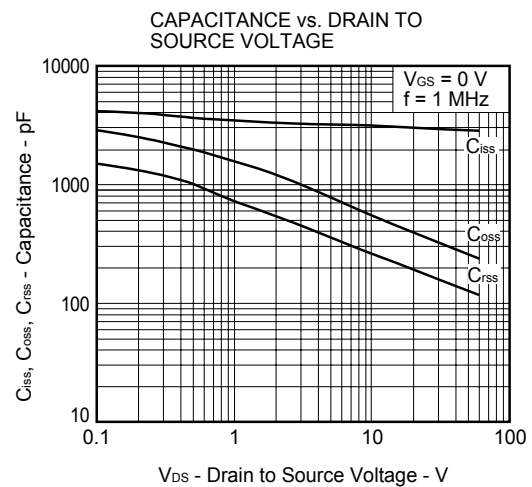
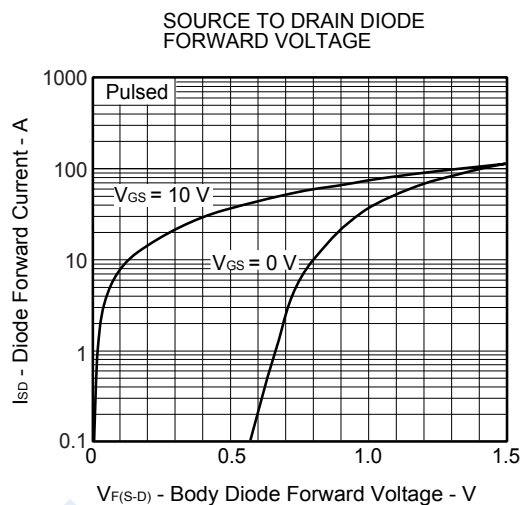
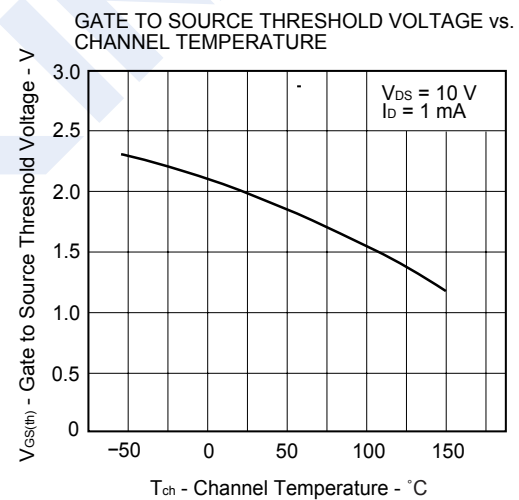
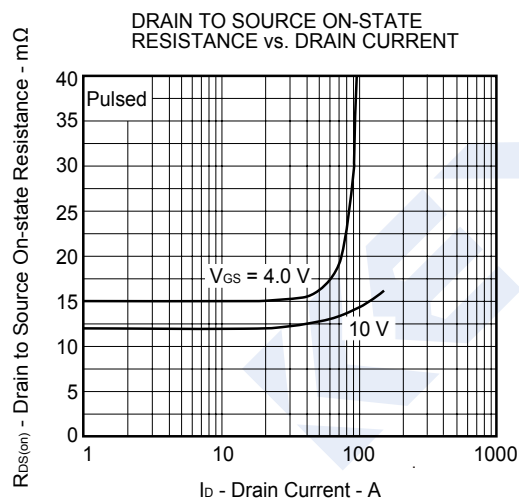
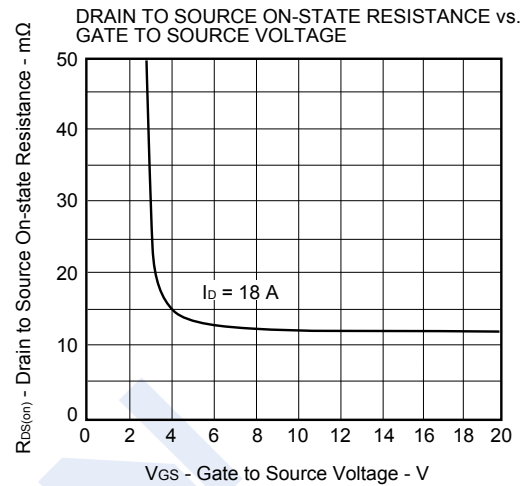
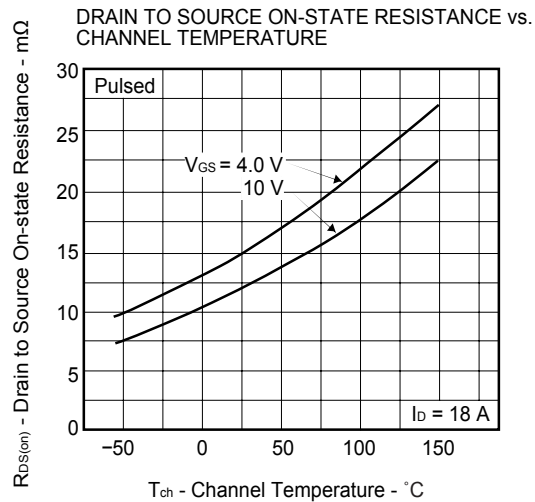
Typical Characteristics



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Typical Characteristics



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Typical Characteristics

