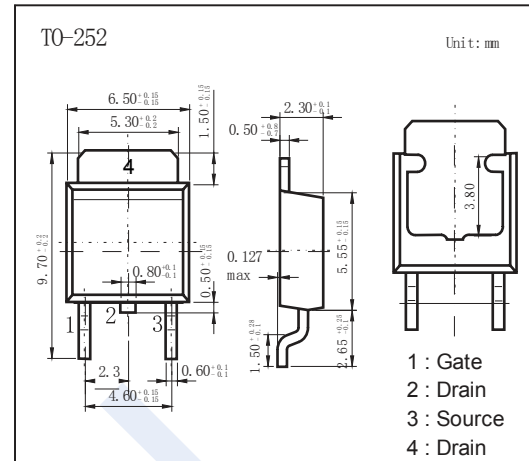
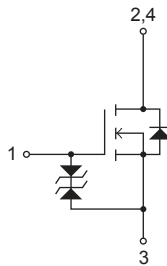


N-Channel Enhancement MOSFET

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■ Features

- V_{DS} (V) = 60V
- I_D = 35 A
- $R_{DS(ON)} < 23m\Omega$ ($V_{GS} = 10V$)
- $R_{DS(ON)} < 33m\Omega$ ($V_{GS} = 4.5V$)
- $R_{DS(ON)} < 37m\Omega$ ($V_{GS} = 4V$)

■ 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	35	A
Pulsed Drain Current (Note.1)	I_{DP}	105	
Avalanche Current (Note.2)	I_{AV}	18	
Avalanche Energy (Single Pulse) (Note.3)	E_{AS}	19	mJ
Power Dissipation $T_c=25^\circ\text{C}$	P_D	40	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	

Note.1 : $PW \leq 10 \mu\text{s}$, duty cycle $\leq 1\%$

Note.2 : $L \leq 100 \mu\text{H}$, Single pulse

Note.3 : $V_{DD}=10V$, $L=100 \mu\text{H}$, $I_{AV}=18A$

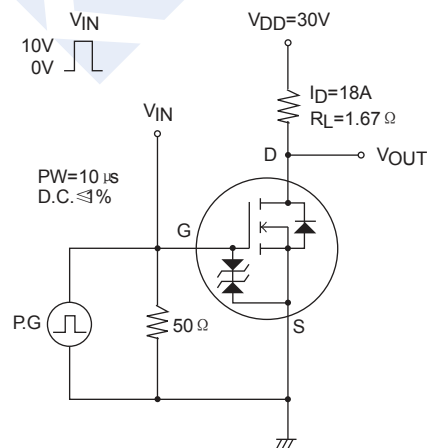
N-Channel Enhancement MOSFET

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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 =1mA, V _{GS} =0V	60			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =60V, V _{GS} =0V			1	μA
Gate-Body Leakage Current	I _{GSS}	V _{DS} =0V, V _{GS} =±16V			±10	
Cutoff Voltage	V _{GS(off)}	V _{DS} =10V, I _D =1mA	1.2		2.6	V
Forward Transfer Admittance	Y _{fs}	V _{DS} =10V, I _D =18A		35		S
Static Drain-Source On-Resistance	R _{DS(on)1}	V _{GS} =10V, I _D =18A		17	23	mΩ
	R _{DS(on)2}	V _{GS} =4.5V, I _D =9A		23	33	
	R _{DS(on)3}	V _{GS} =4.0V, I _D =5A		25	37	
Input Capacitance	C _{iss}	V _{GS} =0V, V _{DS} =20V, f=1MHz		1820		pF
Output Capacitance	C _{oss}			150		
Reverse Transfer Capacitance	C _{rss}			100		
Total Gate Charge	Q _g	V _{GS} =10V, V _{DS} =30V, I _D =35A		34.5		nC
Gate Source Charge	Q _{gs}			6.5		
Gate Drain Charge	Q _{gd}			6.8		
Turn-On DelayTime	t _{d(on)}	See specified Test Circuit		16		ns
Turn-On Rise Time	t _r			110		
Turn-Off DelayTime	t _{d(off)}			125		
Turn-Off Fall Time	t _f			87		
Maximum Body-Diode Continuous Current	I _S				35	A
Diode Forward Voltage	V _{SD}	I _S =35A, V _{GS} =0V		0.96	1.2	V

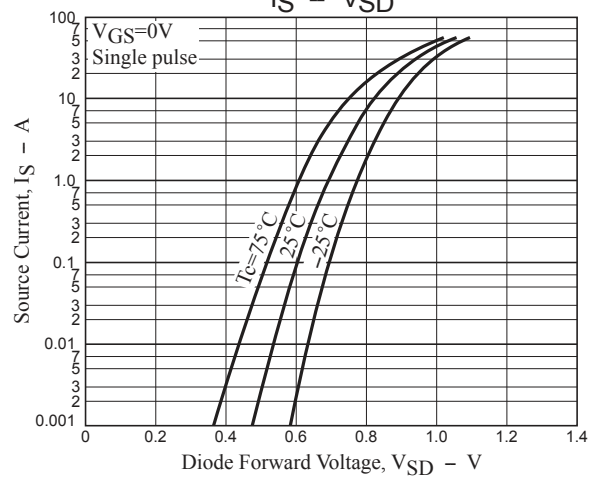
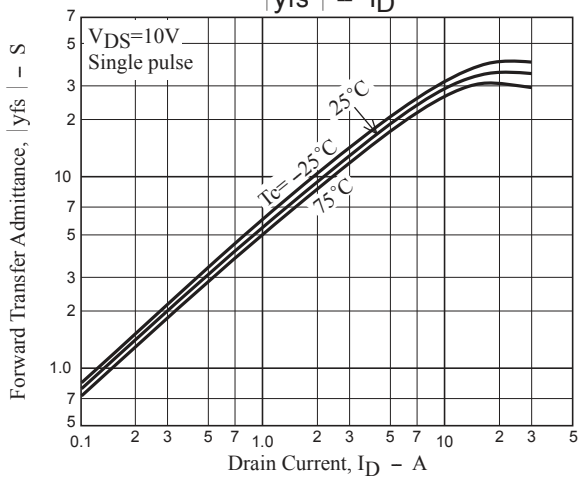
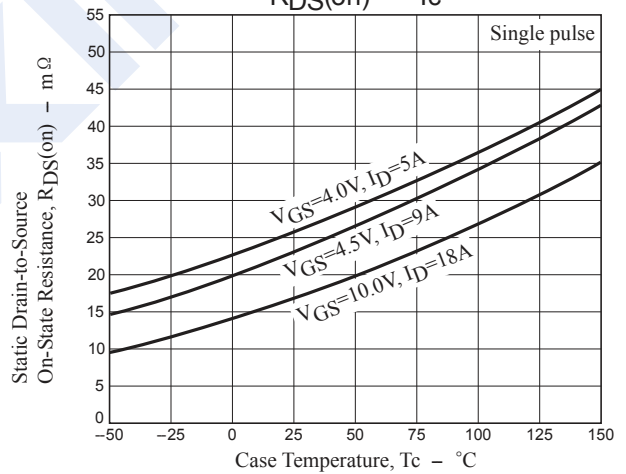
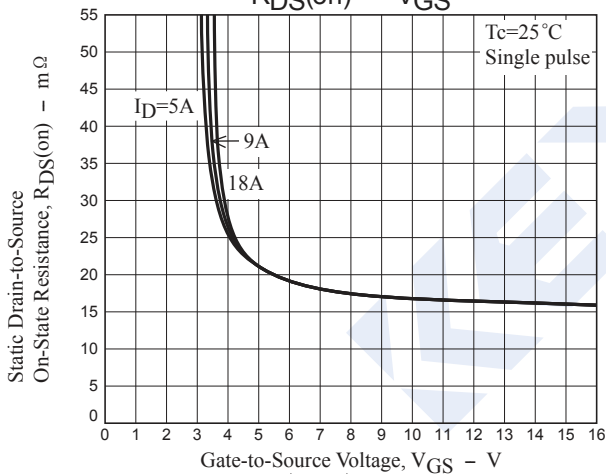
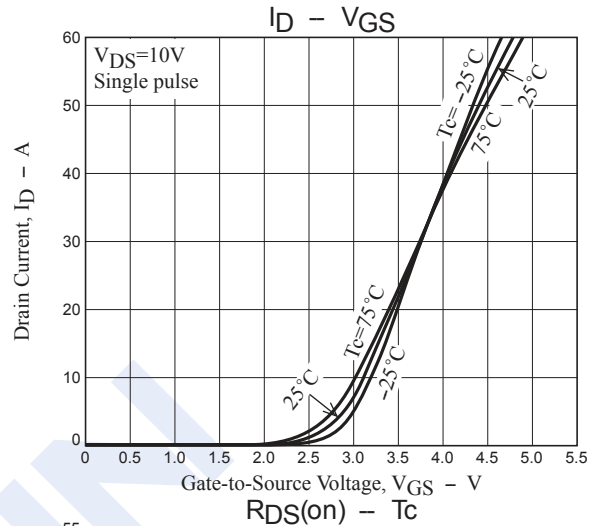
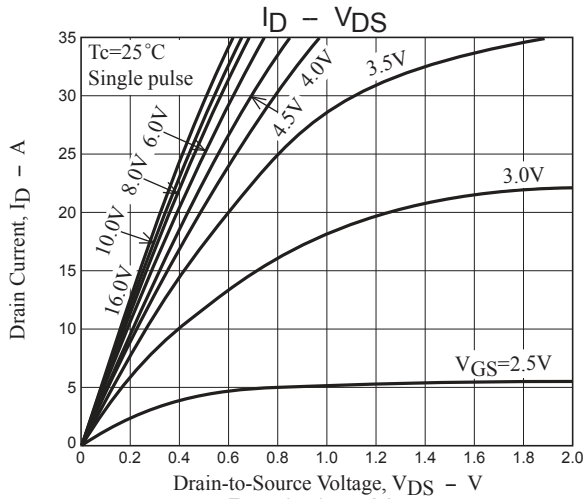
Switching Time Test Circuit:



N-Channel Enhancement MOSFET

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Typical Characteristics



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Typical Characteristics

