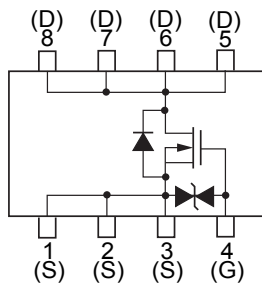


N-Channel MOSFET

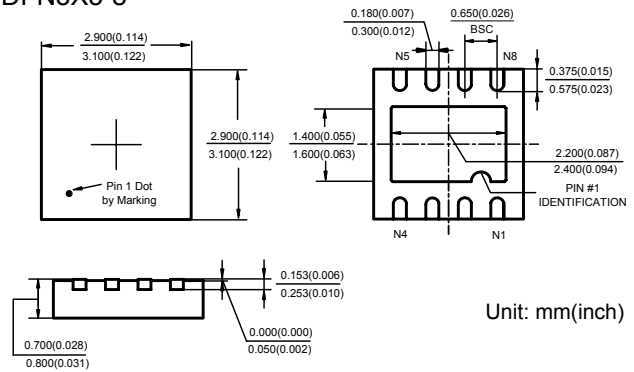
FK8V03040

■ Features

- $V_{DS} (V) = 33V$
- $I_D = 10 A$ ($V_{GS} = 10V$)
- $R_{DS(ON)} < 10m\Omega$ ($V_{GS} = 10V$)
- $R_{DS(ON)} < 19m\Omega$ ($V_{GS} = 4.5V$)
- High-speed switching : $Q_g = 7.2 nC$



DFN3X3-8



The recommended mounting pad size

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

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	33	V
Gate-Source Voltage		V_{GS}	± 20	
Continuous Drain Current	Steady State	I_D	10	A
	$t = 10 s$		12	
Pulsed Drain Current		I_{DM}	40	
Power Dissipation	Steady State	P_D	1	W
	$t = 10 s$		1.5	
Junction Temperature		T_J	150	$^\circ C$
Operating Ambient Temperature		T_{opr}	-40 to 85	
Storage Temperature Range		T_{stg}	-55 to 150	

N-Channel MOSFET

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■ Electrical Characteristics Ta = 25°C

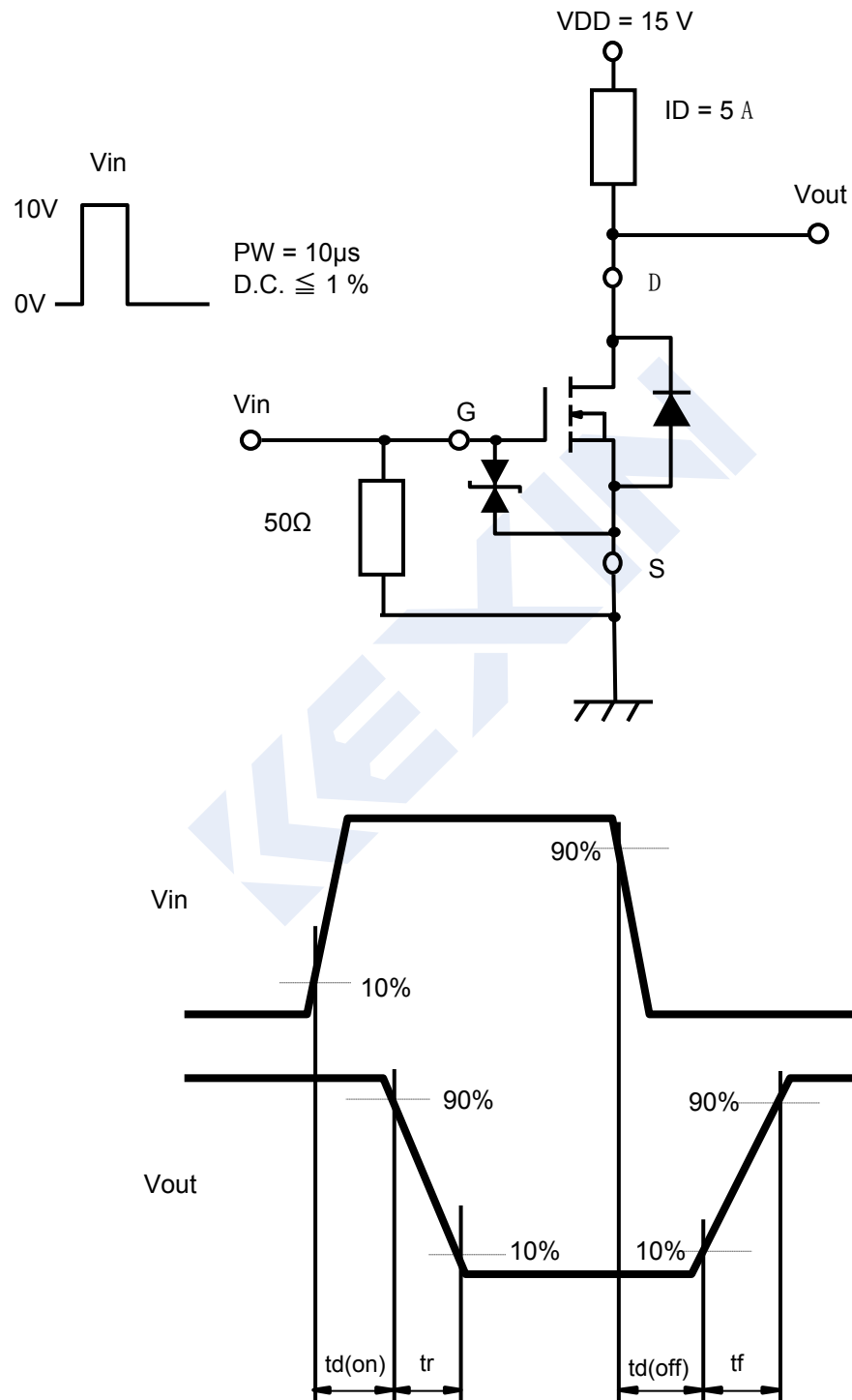
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{DSS}	I _D =1 mA, V _{GS} =0V	33			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =33V, V _{GS} =0V			10	uA
Gate-Body Leakage Current	I _{GSS}	V _{DS} =0V, V _{GS} =±16V			±10	uA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =10V, I _D =1.12mA	1		2.5	V
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =10V, I _D =5A			10	mΩ
		V _{GS} =4.5V, I _D =5A			19	
Input Capacitance	C _{iss}	V _{GS} =0V, V _{DS} =10V, f=1MHz		750		pF
Output Capacitance	C _{oss}			170		
Reverse Transfer Capacitance	C _{rss}			100		
Total Gate Charge	Q _g	V _{GS} =0 to 4.5V, V _{DS} =15V, I _D =10A		7.2		nC
Gate Source Charge	Q _{gs}			2.3		
Gate Drain Charge	Q _{gd}			3.3		
Turn-On DelayTime	t _{d(on)}	V _{GS} =0 to 10V, V _{DS} =15V, I _D =5A		9		ns
Turn-On Rise Time	t _r			6		
Turn-Off DelayTime	t _{d(off)}	V _{GS} =10 to 0 V, V _{DS} =15V, I _D =5A		46		
Turn-Off Fall Time	t _f			18		
Maximum Body-Diode Continuous Current	I _S				10	A
Diode Forward Voltage	V _{SD}	I _S =5A, V _{GS} =0V			1.2	V

■ Marking

Marking	3D
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N-Channel MOSFET FK8V03040

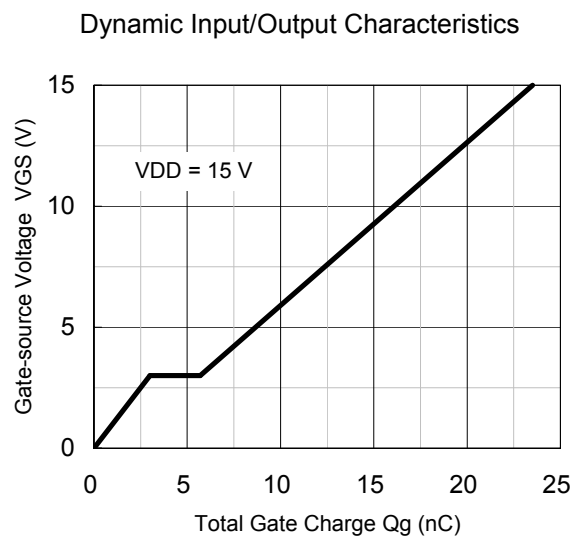
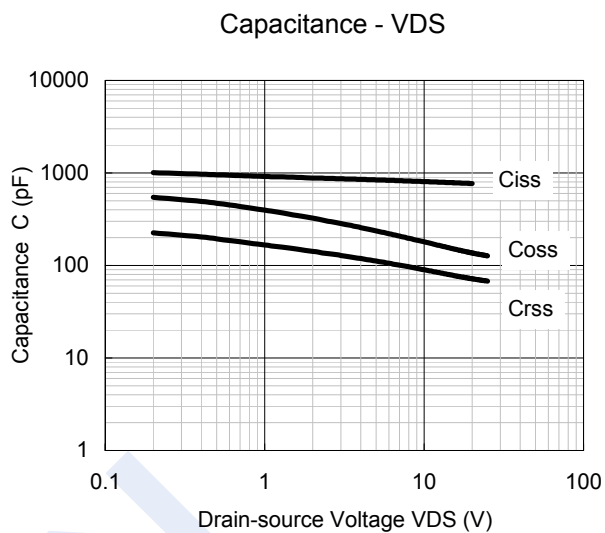
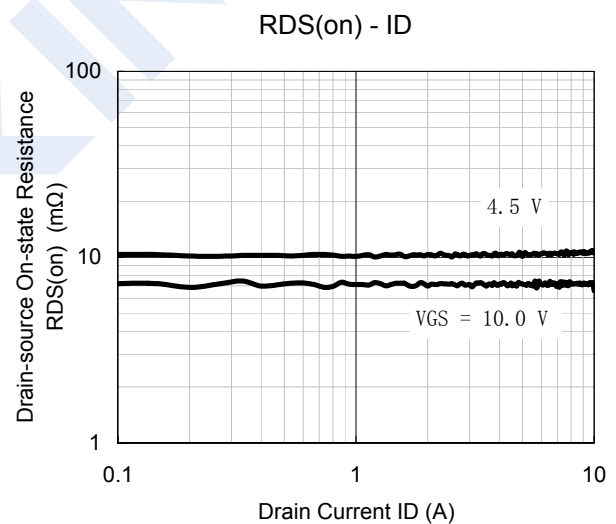
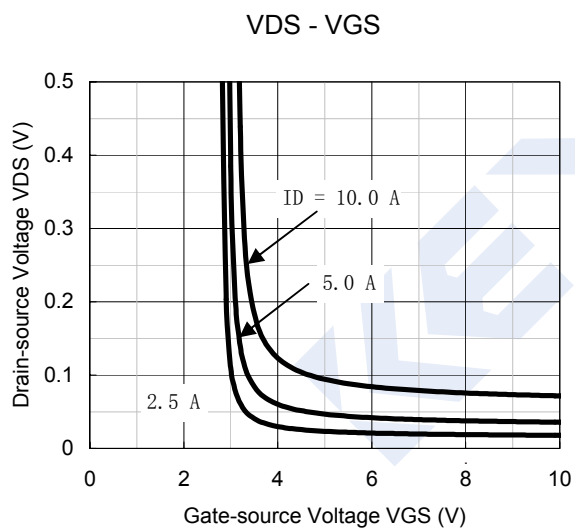
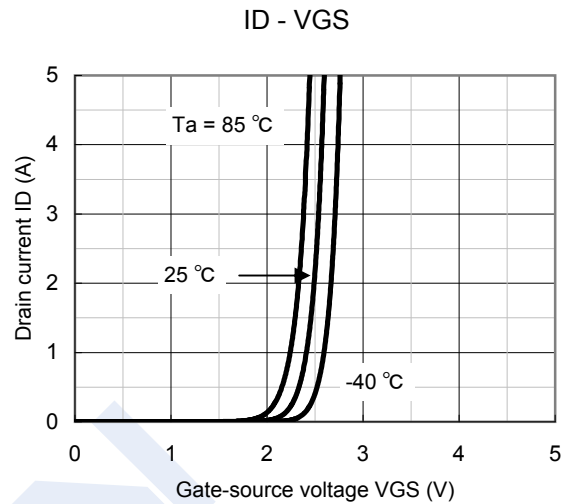
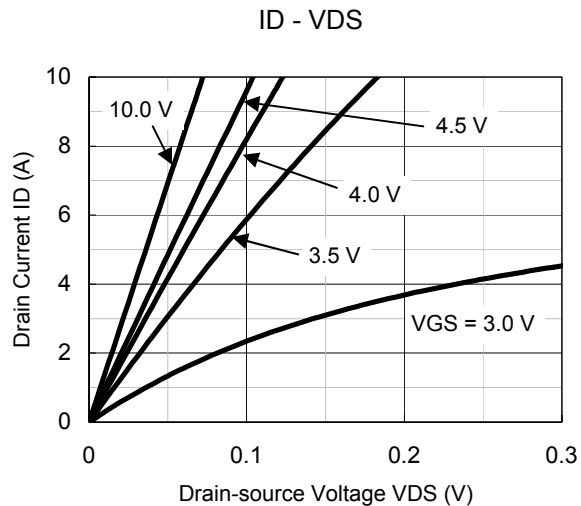
■ Typical Characteristics



N-Channel MOSFET

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■ Typical Characteristics



N-Channel MOSFET

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■ Typical Characteristics

