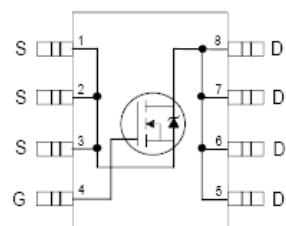
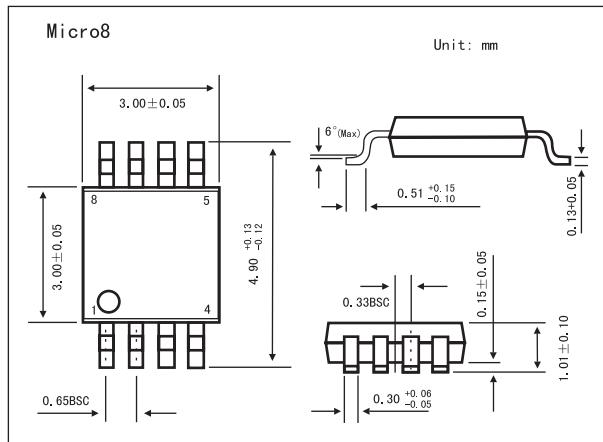


HEXFET® Power MOSFET

KRF7607

■ Features

- Generation V Technology
- Ultra Low On-Resistance
- N-Channel MOSFET
- Very Small SOIC Package
- Low Profile (<1.1mm)
- Available in Tape & Reel
- Fast Switching



Top View

■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Continuous Drain Current, Vgs @ 4.5V, Ta = 25°C	Id	20	A
Continuous Drain Current, Vgs @ 4.5V, TA = 70°C	Id	6.5	
Pulsed Drain Current*1	Idm	5.2	
Power Dissipation Ta = 25°C	Pd	1.8	W
Power Dissipation Ta = 70°C		1.2	
Linear Derating Factor		0.014	W/°C
Gate-to-Source Voltage	Vgs	±12	V
Junction and Storage Temperature Range	Tj, Tstg	-55 to + 150	°C
Junction-to-Ambient *	Rθ JA	70	°C/W

* Surface mounted on FR-4 board, t ≤ 10sec.

KRF7607

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain-to-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D = 250 μ A	20			V
Breakdown Voltage Temp. Coefficient	△V _{(BR)DSS} /△T _J	I _D = 1mA, Reference to 25°C		0.016		V/°C
Static Drain-to-Source On-Resistance	R _{DS(on)}	V _{GS} = 4.5V, I _D = 6.5A*1		0.030		Ω
		V _{GS} = 2.5V, I _D = 5.2A*1		0.045		
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250 μ A	0.60			V
Forward Transconductance	g _{fs}	V _{DS} = 10V, I _D = 6.5A*1	13			S
Drain-to-Source Leakage Current	I _{DSS}	V _{DS} = 16V, V _{GS} = 0V		1.0		μ A
		V _{DS} = 16V, V _{GS} = 0V, T _J = 70°C		25		
Gate-to-Source Forward Leakage	I _{GSS}	V _{GS} = -12V		-100		nA
Gate-to-Source Reverse Leakage		V _{GS} = 12V		100		
Total Gate Charge	Q _g	I _D = 6.5A V _{DS} = 10V V _{GS} = 5.0V,*1		15	22	nC
Gate-to-Source Charge	Q _{gs}			2.2	3.3	
Gate-to-Drain ("Miller") Charge	Q _{gd}			3.5	5.3	
Turn-On Delay Time	t _{d(on)}	V _{DD} = 10V I _D = 1.0A R _G = 6.0 Ω R _D = 10 Ω		8.5		ns
Rise Time	t _r			11		
Turn-Off Delay Time	t _{d(off)}			36		
Fall Time	t _f			16		
Input Capacitance	C _{iss}	V _{GS} = 0V		1310		pF
Output Capacitance	C _{oss}	V _{DS} = 15V		150		
Reverse Transfer Capacitance	C _{rss}	□ = 1.0MHz		36		
Continuous Source Current (Body Diode)	I _s	MOSFET symbol showing the integral reverse p-n junction diode.			1.8	A
Pulsed Source Current (Body Diode) *2	I _{SM}				50	
Diode Forward Voltage	V _{SD}	T _J = 25°C, I _S = 1.7A, V _{GS} = 0V*1			1.2	V
Reverse Recovery Time	t _{rr}	T _J = 25°C, I _F = 1.7A, V _R = 10V di/dt = 100A/ μ s*1		19	29	ns
Reverse RecoveryCharge	Q _{rr}			13	20	nC

*1 Pulse width ≤ 300 μ s; duty cycle ≤ 2%.

*2 Repetitive rating; pulse width limited bymax

