

HEXFET Power MOSFET

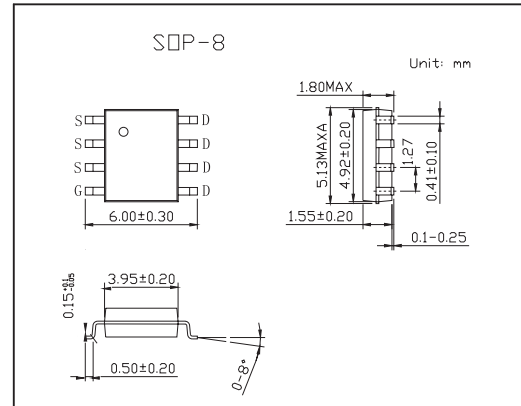
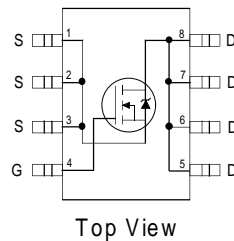
KRF7476PBF

Features

$V_{DS}=15\text{ V}$

$R_{DS(on)}=0.008\ \Omega @V_{GS}=4.5\text{V}$

$R_{DS(on)}=0.03\ \Omega @V_{GS}=2.8\text{ V}$

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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	15	V
Gate-Source Voltage	V_{GS}	± 12	V
Continuous Drain Current	I_D	15	A
Pulsed Drain Current	I_{DM}	120	A
Maximum Power Dissipation	P_D	2.5	W
Maximum Junction-to-Ambient	R_{thJA}	50	$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	T_J, T_{stg}	-55 to 150	$^\circ\text{C}$

KRF7476PBF

Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BVDSS	V _{GS} = 0 V, I _D = -250 μA	15			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = 9.6 V, V _{GS} = 0V	---	---	100	μA
		V _{DS} = 9.6V, V _{GS} = 0V, T _J = 125°C	---	---	250	
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250μA	0.8	---	2.5	V
Gate-Body Leakage	I _{GSS}	V _{DS} = 0V, V _{GS} = 12V	---	---	200	nA
Drain-Source On-State Resistance *	r _{DS(on)}	V _{GS} = 4.5 V, I _D = 15 A	---	6.0	8.0	mΩ
		V _{GS} = 2.8 V, I _D = 12 A	---	12	30	
Avalanche Current	I _{AR}		---	---	12	A
Forward Transconductance*	g _{fs}	V _{DS} = 6.0V, I _D = 11A	31	---	---	S
Total Gate Charge	Q _g	V _{DS} = 10 V, V _{GS} = 4.5 V, I _D = 12 A	---	26	40	nc
Gate-Source Charge	Q _{gs}		---	4.6	---	
Gate-Drain Charge	Q _{gd}		---	11	---	
Turn-On Delay Time	t _{d(on)}	V _{DD} = 6.0V, I _D = 12 A V _{GS} = 4.5 V, R _G = 1.8Ω	---	11	---	ns
Rise Time	t _r		---	29	---	
Turn-Off Delay Time	t _{d(off)}		---	19	---	
Fall Time	t _f		---	8.3	---	
Source-Drain Reverse Recovery Time	t _{rr}	I _F = 12 A, di/dt = 100A/us	---	55	82	ns
Continuous Source Current (Diode Conduction)	I _S		---	2.5	---	A
Diode Forward Voltage*	V _{SD}	I _S = 12 A, V _{GS} = 0 V	---	0.87	1.2	V