

MOS FET — FKV460 (under development)

Absolute Maximum Ratings (Ta=25°C)

Symbol	Ratings	Unit
V _{DSS}	40	V
V _{GSS}	+20, -10	V
I _D	±60	A
I _D (pulse)*	±180	A
P _D	40 (T _C =25°C)	W
T _{ch}	150	°C
T _{stg}	-55 to +150	°C

* P_W ≤ 100μs, duty ≤ 1%

Electrical Characteristics (Ta=25°C)

Symbol	Test Conditions	Ratings			Unit
		min	typ	max	
V _{(BR) DSS}	I _D = 100μA, V _{GS} = 0V	40			V
I _{GSS}	V _{GS} = +20V			+10	μA
	V _{GS} = -20V			-5	μA
I _{DSS}	V _{DS} = 40V, V _{GS} = 0V			100	μA
V _{TH}	V _{DS} = 10V, I _D = 250μA	1.3		2.3	V
R _e (yfs)	V _{DS} = 10V, I _D = 25A	20.0			S
R _{DS (ON)}	V _{GS} = 10V, I _D = 25A		6	8	mΩ
C _{iss}	V _{DS} = 10V		2000		pF
C _{oss}	f = 1.0MHz		1200		pF
C _{rss}	V _{GS} = 0V		200		pF
t _{d (on)}	I _D = 25A				ns
t _r	V _{DD} ≐ 12V		To be defined		ns
t _{d (off)}	R _L = 0.48Ω				ns
t _f	V _{GS} = 10V				ns
V _{SD}	I _{SD} = 50A, V _{GS} = 0V		1.0	1.5	V

External Dimensions FM20 (full-mold)

