

MOS FET MKV670

Absolute Maximum Ratings (Ta=25°C)

Symbol	Ratings	Unit
V _{DSS}	60	V
V _{GSS}	±30	V
I _D	±70	A
I _D (pulse) ^{*1}	±140	A
P _D	130 (Tc=25°C)	W
E _{AS} ^{*2}	400	mJ
T _{ch}	150	°C
T _{stg}	-40 to +150	°C

*1 P_w ≤ 100μs, duty ≤ 1%

*2 V_{DD}=20V, L=10mH, I_L=7.5A, unclamped, R_G=50Ω

Electrical Characteristics (Ta=25°C)

Symbol	Test Conditions	Ratings			Unit
		min	typ	max	
V _{(BR) DSS}	I _D =100μA, V _{GS} =0V	60			V
I _{GSS}	V _{GS} =±20V			±10	μA
I _{DSS}	V _{DS} =60V, V _{GS} =0V			100	μA
V _{TH}	V _{DS} =10V, I _D =250μA	2.0	3.0	4.0	V
R _e (yfs)	V _{DS} =10V, I _D =35A	30			S
R _{DS (ON)}	V _{GS} =10V, I _D =35A		5.5	6.5	mΩ
C _{iss}	V _{DS} =10V		4500		pF
C _{oss}	f=1.0MHz		2200		pF
C _{rss}	V _{GS} =0V		1030		pF
t _{d (on)}	I _D =20A		100		ns
t _r	V _{DD} ÷ 20V		200		ns
t _{d (off)}	R _G =22Ω		250		ns
t _f	V _{GS} =10V		150		ns
V _{SD}	I _{SD} =50A, V _{GS} =0V		0.9	1.5	V
t _{rr}	I _{SD} =25A, di/dt=50A/μs		110		ns
R _{th (ch-c)}				0.961	°C/W
R _{th (ch-a)}				35.71	°C/W

External Dimensions

