

# MOS FET MKV670

## Absolute Maximum Ratings (Ta=25°C)

Symbol	Ratings	Unit
V <sub>DSS</sub>	60	V
V <sub>GSS</sub>	±30	V
I <sub>D</sub>	±70	A
I <sub>D</sub> (pulse) <sup>※1</sup>	±140	A
P <sub>D</sub>	130 (T <sub>C</sub> =25°C)	W
E <sub>AS</sub> <sup>※2</sup>	400	mJ
T <sub>ch</sub>	150	°C
T <sub>stg</sub>	-40 to +150	°C

※1 P<sub>w</sub> ≤ 100μs, duty ≤ 1%

※2 V<sub>DD</sub>=20V, L=10mH, I<sub>L</sub>=7.5A, unclamped, R<sub>G</sub>=50Ω

## Electrical Characteristics (Ta=25°C)

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

## External Dimensions

