

# 2SK1186

External dimensions 1 ..... FM20

## Absolute Maximum Ratings (Ta = 25°C)

Symbol	Ratings	Unit
V <sub>DSS</sub>	100	V
V <sub>GSS</sub>	±20	V
I <sub>D</sub>	±9	A
I <sub>D</sub> (pulse)	±36 (T <sub>ch</sub> ≤ 150°C)	A
P <sub>D</sub>	30 (T <sub>c</sub> = 25°C)	W
E <sub>AS</sub> *	32	mJ
T <sub>ch</sub>	150	°C
T <sub>stg</sub>	-55 to +150	°C

\*: V<sub>DD</sub> = 25V, L = 600μH, I<sub>L</sub> = 9.0A, unclamped, See Figure 1 on Page 5.

## Electrical Characteristics (Ta = 25°C)

Symbol	Ratings			Unit	Conditions
	min	typ	max		
V <sub>(BR) DSS</sub>	100			V	I <sub>D</sub> = 250μA, V <sub>GS</sub> = 0V
I <sub>GSS</sub>			±500	nA	V <sub>GS</sub> = ±20V
I <sub>DSS</sub>			250	μA	V <sub>DS</sub> = 100V, V <sub>GS</sub> = 0V
V <sub>TH</sub>	2.0		4.0	V	V <sub>DS</sub> = 10V, I <sub>D</sub> = 250μA
R <sub>e</sub> (yfs)	2.4	3.7		S	V <sub>DS</sub> = 10V, I <sub>D</sub> = 4.5A
R <sub>DS (on)</sub>		0.24	0.27	Ω	V <sub>GS</sub> = 10V, I <sub>D</sub> = 4.5A
C <sub>iss</sub>		350		pF	V <sub>DS</sub> = 25V, f = 1.0MHz, V <sub>GS</sub> = 0V
C <sub>oss</sub>		130		pF	V <sub>DS</sub> = 25V, f = 1.0MHz, V <sub>GS</sub> = 0V
t <sub>on</sub>		60		ns	I <sub>D</sub> = 4.5A, V <sub>DD</sub> = 50V, V <sub>GS</sub> = 10V, See Figure 2 on Page 5.
t <sub>off</sub>		40		ns	I <sub>D</sub> = 4.5A, V <sub>DD</sub> = 50V, V <sub>GS</sub> = 10V, See Figure 2 on Page 5.

