

# 2SK2208

External dimensions 2 ..... FM100

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

Symbol	Rated	Unit
V <sub>DSS</sub>	900	V
V <sub>GSS</sub>	±30	V
I <sub>D</sub>	±5	A
I <sub>D</sub> (pulse) *1	±20	A
P <sub>D</sub>	75 (T <sub>C</sub> = 25°C)	W
E <sub>AS</sub> *2	400	mJ
I <sub>AS</sub>	5	A
T <sub>ch</sub>	150	°C
T <sub>stg</sub>	-55 to +150	°C

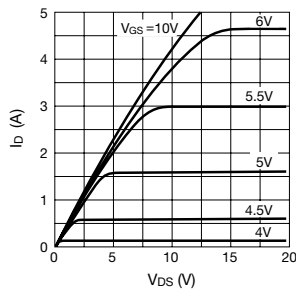
\*1: P<sub>w</sub> ≤ 100μs, duty cycle ≤ 1%

\*2: V<sub>DD</sub> = 50V, L = 30mH, I<sub>L</sub> = 5A, unclamped, R<sub>G</sub> = 50Ω, See Figure 1 on Page 5.

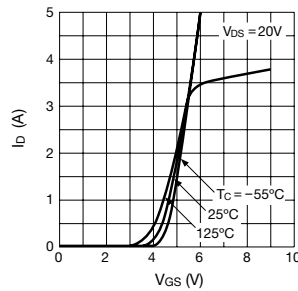
## Electrical Characteristics (Ta = 25°C)

Symbol	Rated			Unit	Conditions
	min	typ	max		
V <sub>(BR)</sub> DSS	900			V	I <sub>D</sub> = 100μA, V <sub>GS</sub> = 0V
I <sub>GSS</sub>			±100	nA	V <sub>GS</sub> = ±30V
I <sub>DSS</sub>			100	μA	V <sub>D</sub> = 900V, V <sub>GS</sub> = 0V
V <sub>TH</sub>	2.0	3.0	4.0	V	V <sub>D</sub> = 10V, I <sub>D</sub> = 1mA
Re (yfs)	2.0	3.0		S	V <sub>D</sub> = 20V, I <sub>D</sub> = 2.5A
R <sub>DS</sub> (on)		2.5	3.0	Ω	V <sub>GS</sub> = 10V, I <sub>D</sub> = 2.5A
C <sub>iss</sub>		1000		pF	V <sub>D</sub> = 10V, f = 1.0MHz, V <sub>GS</sub> = 0V
C <sub>oss</sub>		190		pF	
C <sub>rss</sub>		90		pF	
t <sub>on</sub>		60		ns	I <sub>D</sub> = 2.5A, V <sub>DD</sub> = 250V, R <sub>L</sub> = 100Ω, V <sub>GS</sub> = 10V, See Figure 2 on Page 5.
t <sub>off</sub>		155		ns	

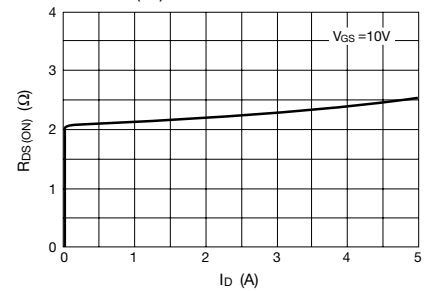
V<sub>D</sub> — I<sub>D</sub> Characteristics



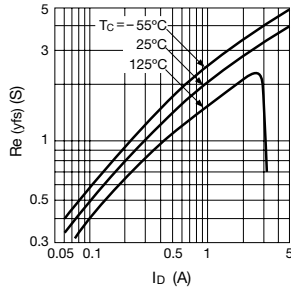
V<sub>GS</sub> — I<sub>D</sub> Characteristics



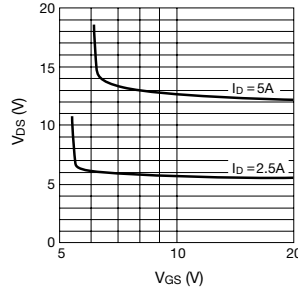
I<sub>D</sub> — R<sub>DS</sub> (ON) Characteristics



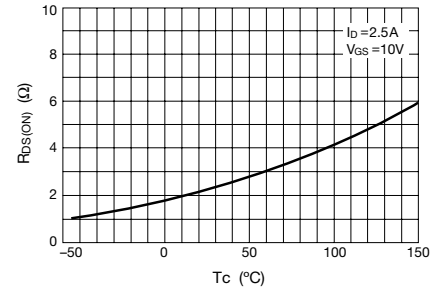
I<sub>D</sub> — Re (yfs) Characteristics



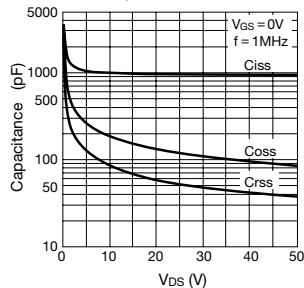
V<sub>GS</sub> — V<sub>DS</sub> Characteristics



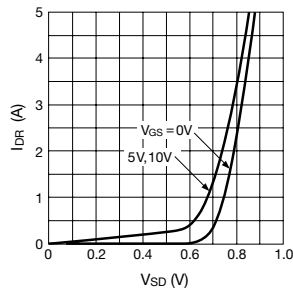
T<sub>C</sub> — R<sub>DS</sub> (ON) Characteristics



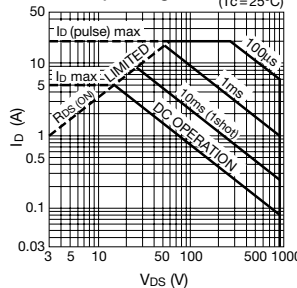
V<sub>D</sub> — Capacitance Characteristics



V<sub>SD</sub> — I<sub>DR</sub> Characteristics



Safe Operating Area (T<sub>C</sub> = 25°C)



T<sub>a</sub> — P<sub>D</sub> Characteristics

