2SK2778

External dimensions 1 ..... FM20

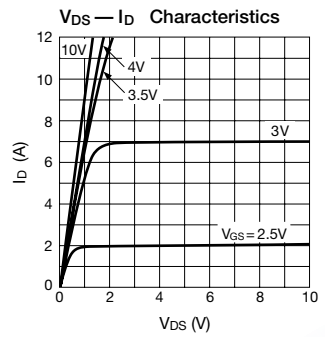
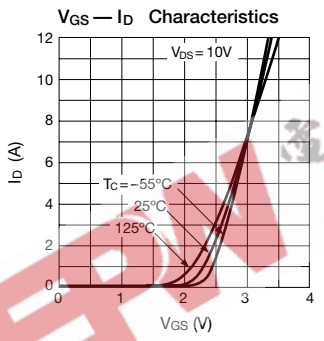
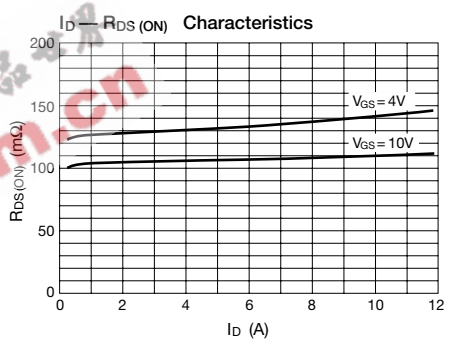
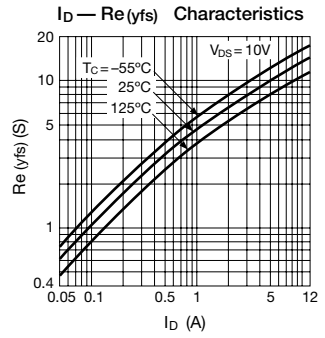
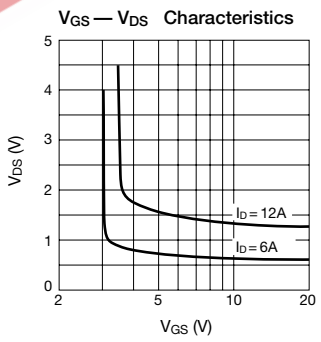
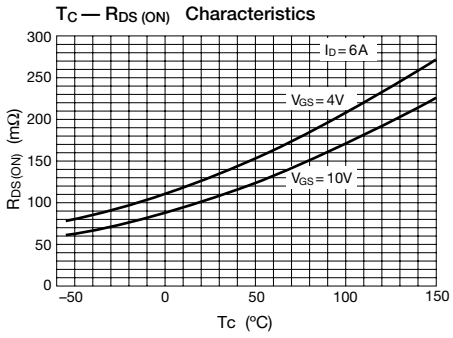
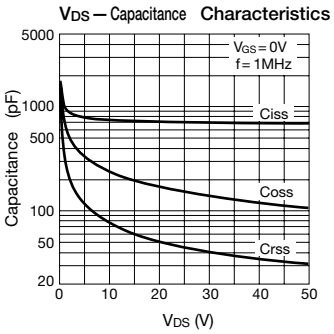
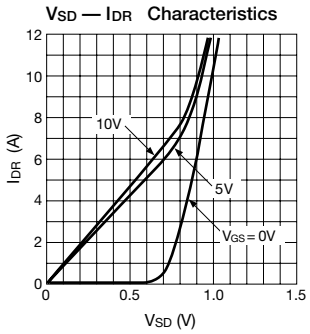
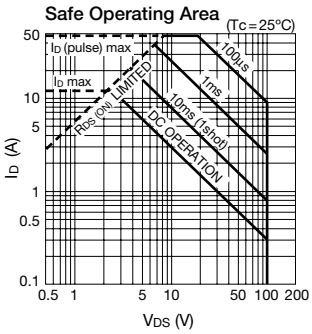
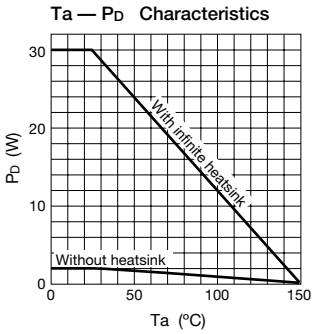
Absolute Maximum Ratings

(Ta = 25°C)

Symbol	Ratings	Unit
V_{DSS}	100	V
V_{GSS}	±20	V
I_D	±12	A
$I_{D\ (pulse)}$ *1	±48	A
P_D	30 (Tc = 25°C)	W
E_{AS} *2	70	mJ
I_{AS}	12	A
Tch	150	°C
Tstg	–55 to +150	°C

*1: $P_W \leqq 100\mu s$, duty cycle ≦ 1%
*2: $V_{DD} = 25V$, $L = 730\mu H$, $I_L = 12A$, unclamped, $R_G = 50\Omega$, See Figure 1 on Page 5.

Electrical Characteristics

(Ta = 25°C)

Symbol	Ratings min	Ratings typ	Ratings max	Unit	Conditions
$V_{(BR)\ DSS}$	100			V	$I_D = 100\mu A$, $V_{GS} = 0V$
I_{GSS}			±100	nA	$V_{GS} = \pm 20V$
I_{DSS}			100	μA	$V_{DS} = 100V$, $V_{GS} = 0V$
V_{TH}	1.0		2.0	V	$V_{DS} = 10V$, $I_D = 250\mu A$
$R_{e\ (yfs)}$	7	11		S	$V_{DS} = 10V$, $I_D = 6A$
$R_{DS\ (on)}$		105	175	mΩ	$V_{GS} = 10V$, $I_D = 6A$
		130	220	mΩ	$V_{GS} = 4V$, $I_D = 6A$
Ciss		740		pF	$V_{DS} = 10V$, f = 1.0MHz, $V_{GS} = 0V$
Coss		240		pF	
Crss		75		pF	
$t_{d\ (on)}$		15		ns	$I_D = 6A$, $V_{DD} \fallingdotseq 50V$, $R_L = 8.3\Omega$, $V_{GS} = 10V$, See Figure 2 on Page 5.
t_r		55		ns	
$t_{d\ (off)}$		60		ns	
t_f		20		ns	
V_{SD}		1.0	1.5	V	$I_{SD} = 12A$, $V_{GS} = 0V$