Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

1. TYPE 2SK3050

2. STRUCTURE SILICON N-CHANNEL MOS FIELD EFFECT TRANSISTOR

3. APPLICATIONS SWITCHING

4. ABSOLUTE MAXIMUM RATINGS [Ta=25℃]

DRAIN-SOURCE VOLTAGE	VDSS	・・・	600V
GATE-SOURCE VOLTAGE	IGSS	・・・	± 30V
DRAIN CURRENT CONTINUOUS	ID	・・・	2A
PULSED	IDP	・・・	6A PW≦10μs DUTY CYCLE≦1%
SOURCE CURRENT CONTINUOUS	IS	・・・	2A
PULSED	ISP	・・・	6A PW≦10μs DUTY CYCLE≦1%
TOTAL POWER DISSIPATION (Tc=25℃)	PD	・・・	20W
CANNEL TEMPERATURE	Tch	・・・	150℃
RANGE OF STRAGE TEMPERATURE	Tstg	・・・	-55 ~ 150℃

5. THERMAL RESISTANCE

CHANNEL TO CASE	Rth(ch-c)	・・・	6.25℃/W

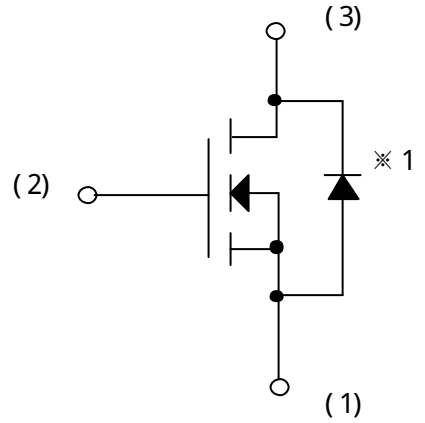
6. ELECTRICAL CHARACTERISTICS [Ta=25℃]

PARAMETER	ITEM	CONDITION	MIN.	TYP.	MAX.
GATE-SOURCE LEAKAGE	IGSS	VGS= ± 30V / VDS=0V	-	-	± 100nA
DRAIN-SOURCE BREAKDWON VOLTAGE	V(BR)DSS	ID=1mA / VGS=0V	600V	-	-
ZERO GATE VOLTAGE DRAIN CURRENT	IDSS	VDS=600 / VGS=0V	-	-	100μ A
GATE THRESHOLD VOLTAGE	VGS(th)	VDS=10V / ID=1mA	2.0V	-	4.0V
STATIC DRAIN-SOURCE ON-STATE RESISTANCE	RDS(on)	ID=1A / VGS=10V	-	4.4Ω	5.5Ω
FORWARD TRANSFER ADMITTANCE	| Yfs | * PULSE	VDS=10V / ID=1A	0.5S	1.0S	-
INPUT CAPACITANCE	Ciss	VDS=10V / VGS=0V f=1MHz	-	280pF	-
OUTPUT CAPACITANCE	Coss		-	48pF	-
REVERSE TRANSFER CAPACITANCE	Crss		-	16pF	-
TURN-ON DELAY TIME	td(on) * PULSE	ID=1A / VDD ≒ 300V VGS=10V / RL=300Ω RGS=10Ω	-	12ns	-
RISE TIME	tr * PULSE		-	17ns	-
TURN-OFF DELAY TIME	td(off) * PULSE		-	29ns	-
FALL TIME	tf * PULSE		-	105ns	-
TOTAL GATE CHARGE	Qg * PULSE	VDD ≒ 300V / VGS=10V ID=2A	-	12.8nC	25.6nC
GATE-SOURCE CHARGE	Qgs * PULSE		-	3.3nC	-
GATE-DRAIN CHARGE	Qgd * PULSE		-	5.5nC	-

7. BODY DIODE CHARACTERISTICS(SOURCE- DRAIN CHARACTERISTICS) [Ta=25℃]

PARAMETER	ITEM	CONDITION	MIN.	TYP.	MAX.
FORWARD VOLTAGE	VSD * PULSE	Is=2A / VGS=0V			2.0 V
REVERSE RECOVERY TIME	Trr * PULSE	IDR=2 / VGS=0V di/dt=100A/uS		460nS	
REVERSE RECOVERY CHARGE	Qrr * PULSE			2.0uC	

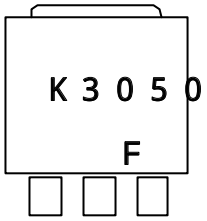
8 . INNER CIRCUIT



(1) SOURCE
(2) GATE
(3) DRAIN

※1 BODY DIODE

9. MARKING



" K3050" MEANS 2SK3050 .

" F " MEANS THE PRODUCTION MONTH. PLEASE SEE TABLE 1 FOR DETAILS.

Table 1

Production month		1	2	3	4	5	6	7	8	9	10	11	12
Marking	Even year A.D.	A	B	C	D	E	F	G	H	J	K	L	M
	Odd year A.D.	N	P	Q	R	S	T	U	V	W	X	Y	Z