

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!



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**Micro Commercial Components** 



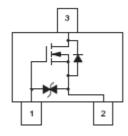
Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

Phone: (818) 701-4933 Fax: (818) 701-4939

# SI3134K

## **Features**

- Lead Free Product is Acquired
- Halogen free available upon request by adding suffix "-HF"
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Operated at Low Logic Level Gate Drive
- N-Channel Switch with Low RDS(on)
- Surface Mount Package
- Marking : KF



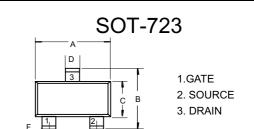
## Absolute maximum ratings @ 25 ℃

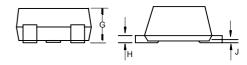
Symbol	Parameter	Value	Unit
$V_{DS}$	Drain-source Voltage	20	V
$V_{GS}$	Gate-source Voltage	±12	V
$I_D$	Continuous Drain Current	0.75 A	
I <sub>DM</sub>	Pulsed Drain Current	1.8	Α
$P_D$	Total Power Dissipation	150	mW
TJ	Operating Junction Temperature	-55 to +150 °C	
$T_{STG}$	Storage Temperature	-55 to +150 °C	
T <sub>L</sub>	Lead Temperature for Soldering Purposes	260 ℃	
RthJA	Thermal Resistance fromJunction to Ambient	833	°C/W

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Para	meter	Min	Тур	Max	Units
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage (V <sub>GS</sub> =0Vdc, I <sub>D</sub> =250µAdc)		20			Vdc
$V_{\text{GS(th)}}$	Gate-Threshold Voltage (V <sub>DS</sub> =V <sub>GS</sub> , I <sub>D</sub> =250uAdc)		0.35		1.0	Vdc
I <sub>GSS</sub>	Gate-body Leakage (V <sub>DS</sub> =0Vdc, V <sub>GS</sub> =±12Vdc)				±50	uA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current (V <sub>DS</sub> =20Vdc, V <sub>GS</sub> =0Vdc)				1	uAdc
$V_{SD}$	Diode Forward Voltage (I <sub>S</sub> =0.15A,V <sub>GS</sub> =0V				1.2	Vdc
r <sub>DS(on)</sub>	Drain-Source On-Resistance ( $V_{GS}$ =4.5Vdc, $I_D$ =0.65Adc) ( $V_{GS}$ =2.5Vdc, $I_D$ =0.55Adc) ( $V_{GS}$ =1.8Vdc, $I_D$ =0.45Adc)				0.38 0.45 0.80	Ω
<b>g</b> FS	Forward transconductance (V <sub>DS</sub> =10Vdc, I <sub>D</sub> =0.8Adc)			1.6		S
C <sub>iss</sub>	Input Capacitance	V <sub>DS</sub> =16Vdc,		79	120	
Coss	Output Capacitance	$V_{DS}$ =10 VdC, $V_{GS}$ =0 VdC		13	20	pF
$C_{rSS}$	Reverse Transfer capacitance	f=1MHz		9	15	φ.
$t_{d(on)}$	Turn-on Time	V <sub>GS</sub> =4.5V, V <sub>DS</sub> =10V	-	6.7		
$t_{\text{d(off)}}$	Turn-off Time	I <sub>D</sub> =500mA		17.3		ns
t <sub>r</sub>	Rise Time	$R_{GEN}$ =10 $\Omega$		4.8		110
t <sub>r</sub>	Fall Time			7.4		

## **N-Channel MOSFET**



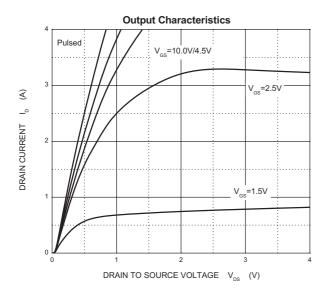


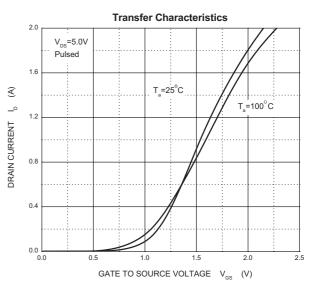
DIMENSIONS					
	INCHES		ММ		
DIM	MIN	MAX	MIN	MAX	NOTE
Α	.045	.049	1.15	1.25	
В	.045	.049	1.15	1.25	
С	.030	.033	0.75	0.85	
D	.011	.015	0.27	0.37	
Е	0.031TYP.		0.80	OTYP.	
F	.007	.011	0.17	0.27	
G	.017	.020	0.43	0.50	
Н	.003	.006	0.08	0.15	
J	.000	.002	0.00	0.05	

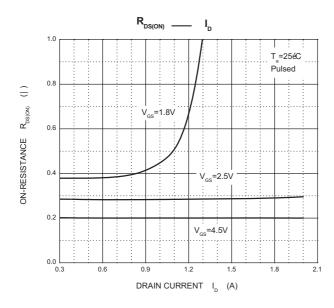
# SI3431K

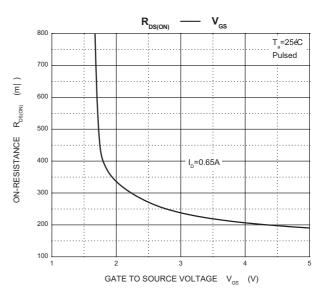
# ·M·C·C·

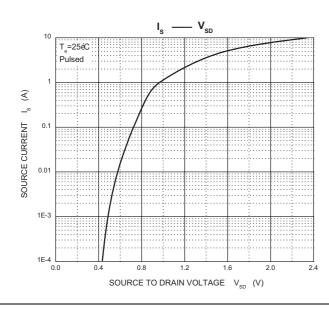
### **Micro Commercial Components**

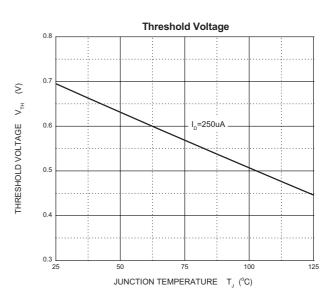














## **Ordering Information:**

Device	Packing
Part Number-TP	Tape&Reel: 8Kpcs/Reel

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

#### \*\*\*IMPORTANT NOTICE\*\*\*

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