



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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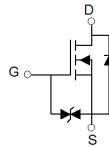
# SI3134KL

## N-Channel MOSFET

### 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 :34

Equivalent Circuit



### Absolute maximum ratings @ 25°C

Symbol	Parameter	Value	Unit
V <sub>DS</sub>	Drain-source Voltage	20	V
V <sub>GS</sub>	Gate-source Voltage	± 12	V
I <sub>D</sub>	Continuous Drain Current <sup>(1)</sup>	0.75	A
I <sub>DM</sub>	Pulsed Drain Current	1.8	A
P <sub>D</sub>	Total Power Dissipation <sup>(2)</sup>	100	mW
T <sub>J</sub>	Operating Junction Temperature	-55 to +150	°C
T <sub>STG</sub>	Storage Temperature	-55 to +150	°C
T <sub>L</sub>	Lead Temperature for Soldering Purposes	260	°C
R <sub>thJA</sub>	Thermal Resistance from Junction to Ambient	1250	°C/W

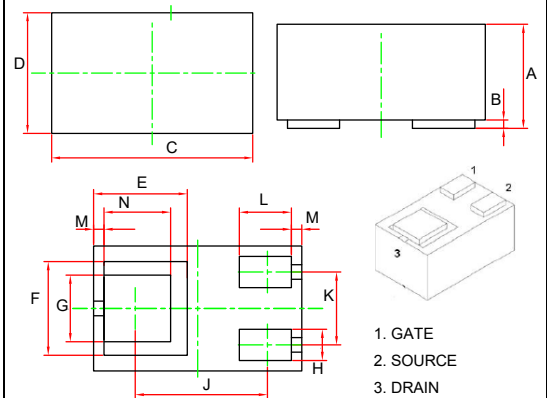
### Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units	
STATIC PARAMETERS						
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage (V <sub>GS</sub> =0Vdc, I <sub>D</sub> =250µAdc)	20	---	---	Vdc	
V <sub>GS(th)</sub>	Gate-Threshold Voltage (V <sub>DS</sub> =V <sub>GS</sub> , I <sub>D</sub> =250µAdc)	0.35	---	1.1	Vdc	
I <sub>GSS</sub>	Gate-body Leakage (V <sub>DS</sub> =0Vdc, V <sub>GS</sub> =±10Vdc)	---	---	± 20	µA	
I <sub>DSS</sub>	Zero Gate Voltage Drain Current (V <sub>DS</sub> =20Vdc, V <sub>GS</sub> =0Vdc)	---	---	1	µAdc	
V <sub>SD</sub>	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 <sub>GS</sub> =4.5Vdc, I <sub>D</sub> =0.65Adc) (V <sub>GS</sub> =2.5Vdc, I <sub>D</sub> =0.55Adc) (V <sub>GS</sub> =1.8Vdc, I <sub>D</sub> =0.45Adc)	---	---	0.38 0.45 0.80	Ω	
g <sub>FS</sub>	Forward transconductance (V <sub>DS</sub> =10Vdc, I <sub>D</sub> =0.8Adc)	---	1.6	---	S	
DYNAMIC PARAMETERS <sup>(4)</sup>						
C <sub>iss</sub>	Input Capacitance	V <sub>DS</sub> =16Vdc, V <sub>GS</sub> =0Vdc f=1MHz	---	79	120	pF
C <sub>oss</sub>	Output Capacitance		---	13	20	
C <sub>rss</sub>	Reverse Transfer capacitance		---	9	15	
SWITCHING PARAMETERS <sup>(4)</sup>						
t <sub>d(on)</sub>	Turn-on Time <sup>(3)</sup>	V <sub>GS</sub> =4.5V, V <sub>DS</sub> =10V I <sub>D</sub> =500mA R <sub>GEN</sub> =10Ω	---	6.7	---	ns
t <sub>d(off)</sub>	Turn-off Time <sup>(3)</sup>		---	17.3	---	
t <sub>r</sub>	Rise Time <sup>(3)</sup>		---	4.8	---	
t <sub>f</sub>	Fall Time <sup>(3)</sup>		---	7.4	---	

**Notes :**

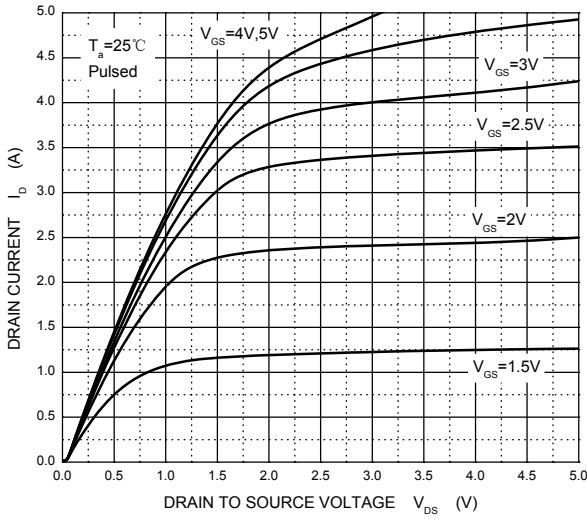
- 1.Surface mounted on FR4 board using the minimum recommended pad size.
- 2.Pulse est : Pulse width=300µs, duty cycle≤2%.
3. Switching characteristics are independent of operating junction temperatures.
4. Granted y design, not subject to producing.

### SOT-883

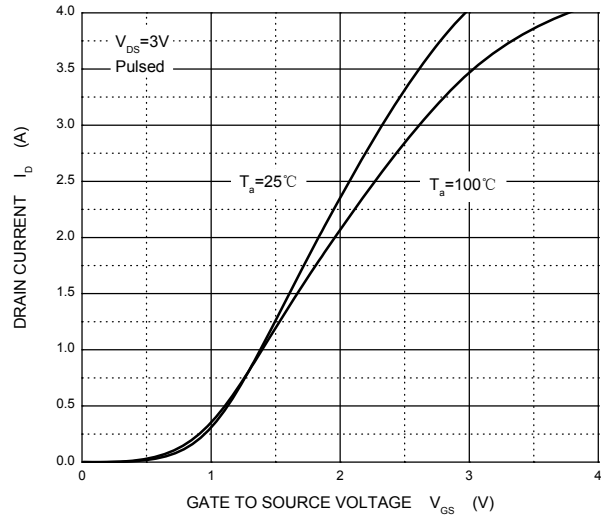


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.018	0.022	0.450	0.550	
B	0.000	0.004	0.010	0.100	
C	0.037	0.041	0.950	1.050	
D	0.022	0.026	0.550	0.650	
E	0.018REF.		0.450REF.		
F	0.018REF.		0.450REF.		
G	0.011	0.015	0.270	0.370	
H	0.004	0.008	0.100	0.200	
J	0.025REF.		0.635REF.		
K	0.012	0.016	0.300	0.400	
L	0.008	0.012	0.200	0.300	
M	0.002REF.		0.050REF.		
N	0.011	0.015	0.270	0.370	

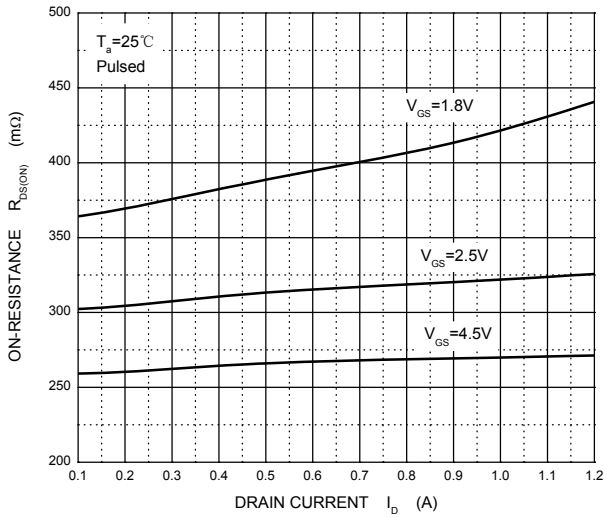
**Output Characteristics**



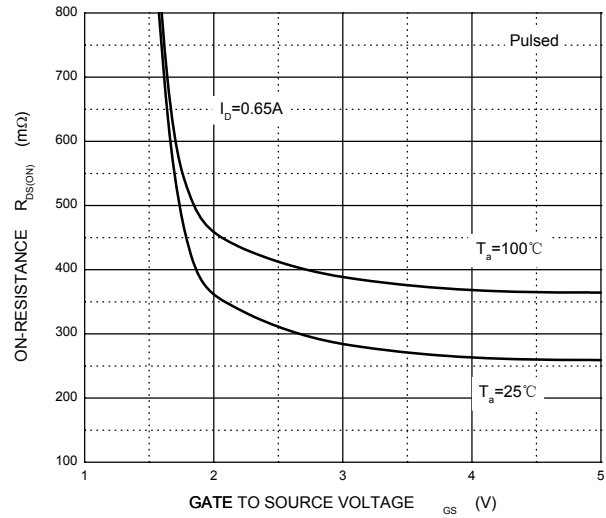
**Transfer Characteristics**



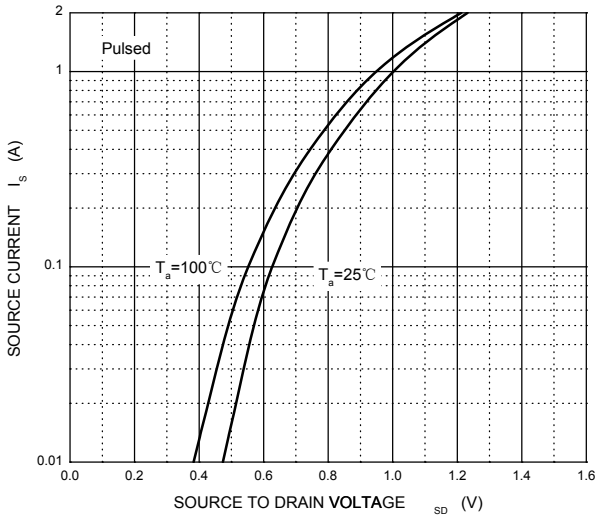
**$R_{DS(ON)}$  —  $I_D$**



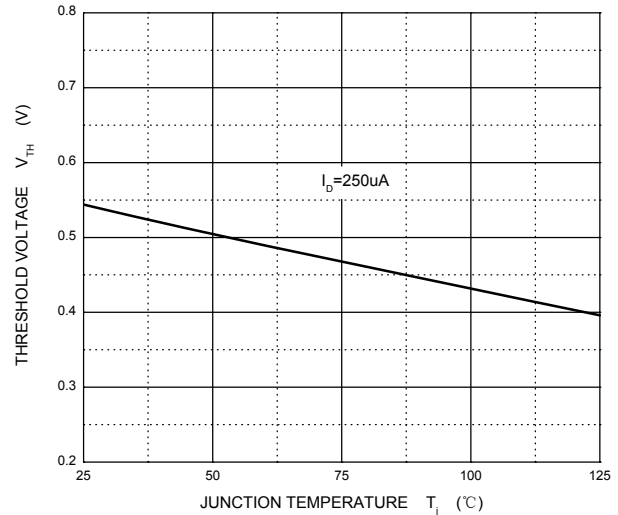
**$R_{DS(ON)}$  —  $V_{GS}$**



**$I_S$  —  $V_{SD}$**



**Threshold Voltage**







Micro Commercial Components

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 10Kpcs/Reel

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

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