



Micro Commercial Components



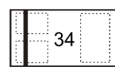
Micro Commercial Components  
130 W Cochran St, Unit B  
Simi Valley, CA 93065  
Tel:818-701-4933

# SI3134KL3

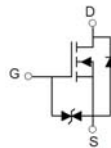
## Features

- 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



Top View  
Bar Denotes Gate  
and Source Side



## Absolute maximum ratings @ 25°C

Symbol	Parameter	Value	Unit
$V_{DS}$	Drain-source Voltage	20	V
$V_{GS}$	Gate-source Voltage	$\pm 12$	V
$I_D$	Continuous Drain Current <sup>(1)</sup>	0.75	A
$I_{DM}$	Pulsed Drain Current	1.8	A
$P_D$	Power Dissipation <sup>(2)</sup>	100	mW
$T_J$	Operating Junction Temperature	-55 to +150	°C
$T_{STG}$	Storage Temperature	-55 to +150	°C
$T_L$	Lead Temperature for Soldering Purposes	260	°C
$R_{thJA}$	Thermal Resistance from Junction to Ambient	1250	°C/W

## Electrical Characteristics @ 25°C Unless Otherwise Specified

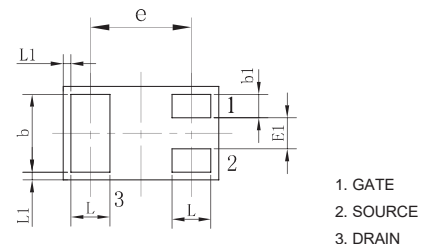
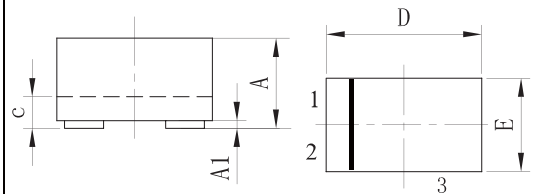
Symbol	Parameter	Min	Typ	Max	Units	
STATIC PARAMETERS						
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage (V <sub>GS</sub> =0Vdc, I <sub>D</sub> =250μAdc)	20	---	---	Vdc	
V <sub>GS(th)</sub>	Gate-Threshold Voltage (V <sub>DS</sub> =V <sub>GS</sub> , I <sub>D</sub> =250μAdc)	0.35	0.75	1.1	Vdc	
I <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> =0.15Adc) (V <sub>GS</sub> =2.5Vdc, I <sub>D</sub> =0.15Adc) (V <sub>GS</sub> =1.8Vdc, I <sub>D</sub> =0.15Adc)	---	0.25 0.30 0.37	0.50 0.70 0.90	Ω	
g <sub>FS</sub>	Forward transconductance (V <sub>DS</sub> =10Vdc, I <sub>D</sub> =0.15Adc)	150	---	---	mS	
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=300 $\mu s$ , duty cycles $\leq 2\%$ .
3. Switching characteristics are independent of operating junction temperatures.
4. Graranted y design, not subject to producing.

## N-Channel MOSFET

## DFN1006-3

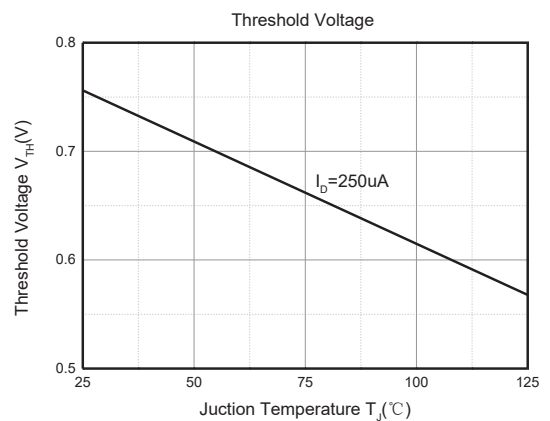
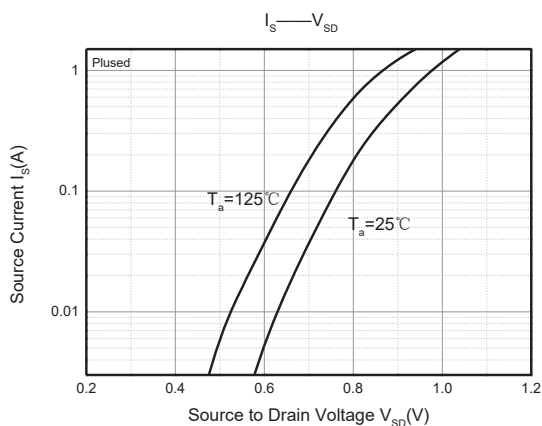
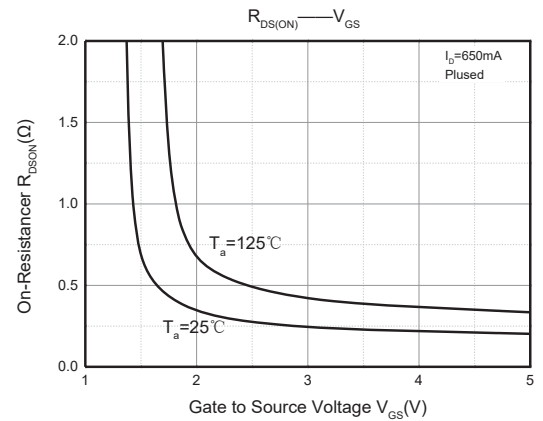
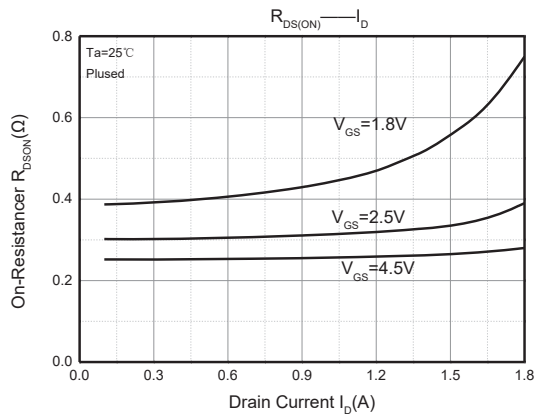
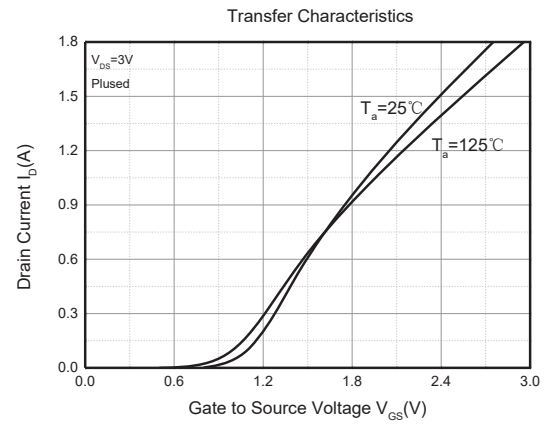
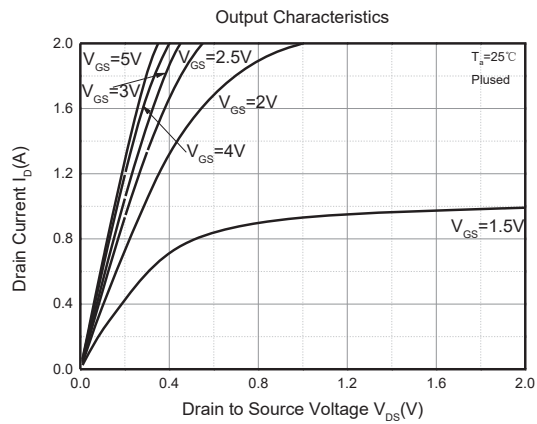


1. GATE
2. SOURCE
3. DRAIN

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.018	0.022	0.45	0.55	
A1	0.000	0.002	0.00	0.05	
b	0.018	0.022	0.45	0.55	
b1	0.004	0.008	0.10	0.20	
c	0.005	0.007	0.12	0.18	
D	0.037	0.042	0.95	1.075	
E	0.022	0.027	0.55	0.675	
E1	0.006	0.010	0.15	0.25	
e	0.026 BSC		0.65BSC		
L	0.008	0.012	0.20	0.30	
L1	0.0002 REF		0.05 REF		

# SI3134KL3

## Typical Characteristics



## 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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