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Micro Commercial Components

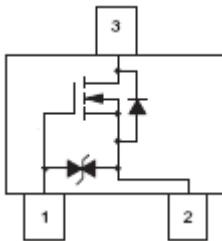


Micro Commercial Components
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SI3134K

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°C

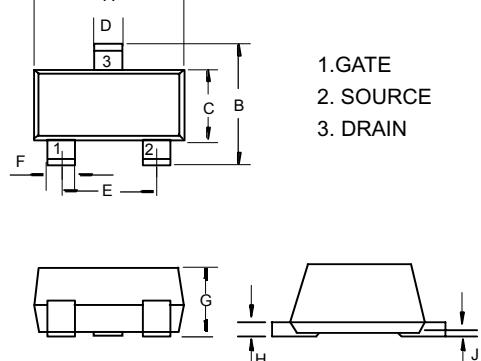
Symbol	Parameter	Value	Unit
V_{DS}	Drain-source Voltage	20	V
V_{GS}	Gate-source Voltage	± 12	V
I_D	Continuous Drain Current	0.75	A
I_{DM}	Pulsed Drain Current	1.8	A
P_D	Total Power Dissipation	150	mW
T_J	Operating Junction Temperature	-55 to +150	°C
T_{STG}	Storage Temperature	-55 to +150	°C
T_L	Lead Temperature for Soldering Purposes	260	°C
R_{thJA}	Thermal Resistance from Junction to Ambient	833	°C/W

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage ($V_{GS}=0$ Vdc, $I_D=250\mu$ Adc)	20	---	---	Vdc
$V_{GS(th)}$	Gate-Threshold Voltage ($V_{DS}=V_{GS}$, $I_D=250\mu$ Adc)	0.35	---	1.0	Vdc
I_{GSS}	Gate-body Leakage ($V_{DS}=0$ Vdc, $V_{GS}=\pm 12$ Vdc)	---	---	± 50	μ A
I_{DSS}	Zero Gate Voltage Drain Current ($V_{DS}=20$ Vdc, $V_{GS}=0$ Vdc)	---	---	1	μ Adc
V_{SD}	Diode Forward Voltage ($I_S=0.15$ A, $V_{GS}=0$ V)	---	---	1.2	Vdc
$r_{DS(on)}$	Drain-Source On-Resistance ($V_{GS}=4.5$ Vdc, $I_D=0.65$ Adc) ($V_{GS}=2.5$ Vdc, $I_D=0.55$ Adc) ($V_{GS}=1.8$ Vdc, $I_D=0.45$ Adc)	---	---	0.38 0.45 0.80	Ω
g_{FS}	Forward transconductance ($V_{DS}=10$ Vdc, $I_D=0.8$ Adc)	---	1.6	---	S
C_{iss}	Input Capacitance	$V_{DS}=16$ Vdc, $V_{GS}=0$ Vdc $f=1$ MHz	79	120	pF
C_{oss}	Output Capacitance		13	20	
C_{rss}	Reverse Transfer capacitance		9	15	
$t_{d(on)}$	Turn-on Time	$V_{GS}=4.5$ V, $V_{DS}=10$ V $I_D=500$ mA $R_{GEN}=10\Omega$	6.7	---	ns
$t_{d(off)}$	Turn-off Time		17.3	---	
t_r	Rise Time		4.8	---	
t_f	Fall Time		7.4	---	

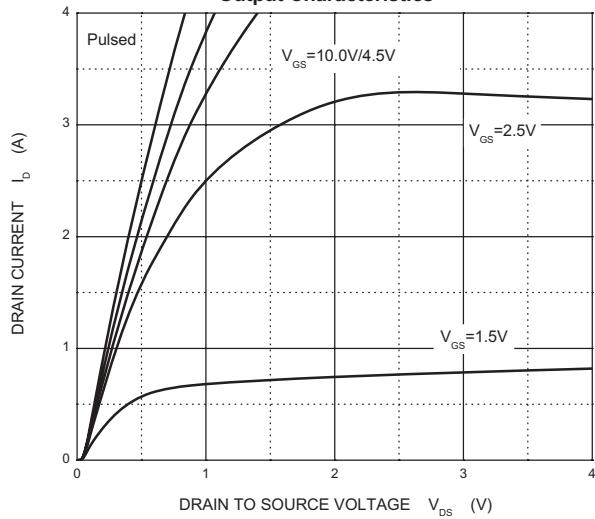
N-Channel MOSFET

SOT-723

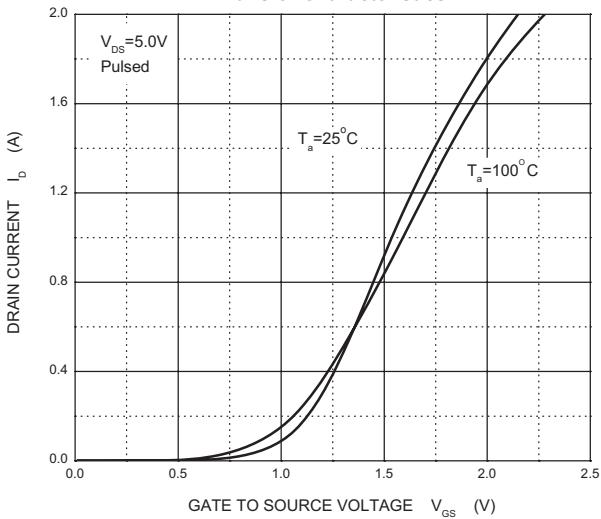


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.045	.049	1.15	1.25	
B	.045	.049	1.15	1.25	
C	.030	.033	0.75	0.85	
D	.011	.015	0.27	0.37	
E	0.031TYP.		0.80TYP.		
F	.007	.011	0.17	0.27	
G	.017	.020	0.43	0.50	
H	.003	.006	0.08	0.15	
J	.000	.002	0.00	0.05	

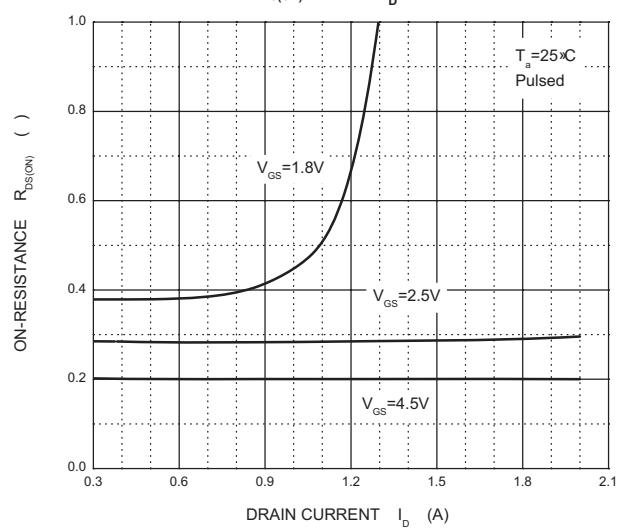
Output Characteristics



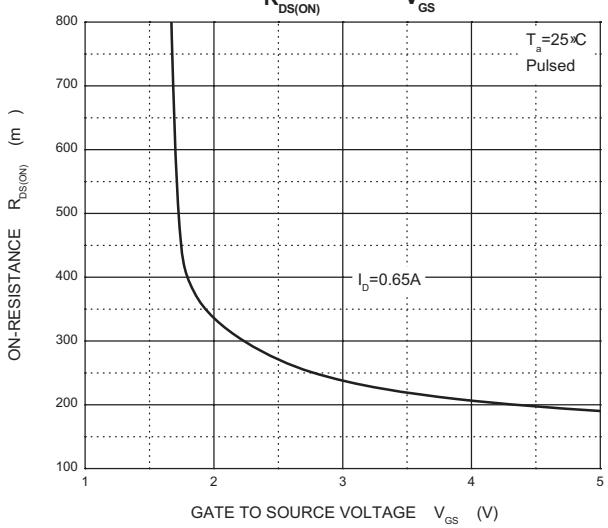
Transfer Characteristics



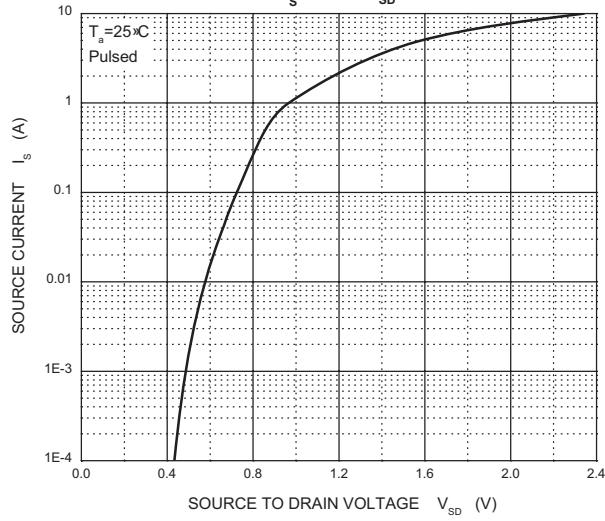
$R_{DS(ON)}$ — I_D



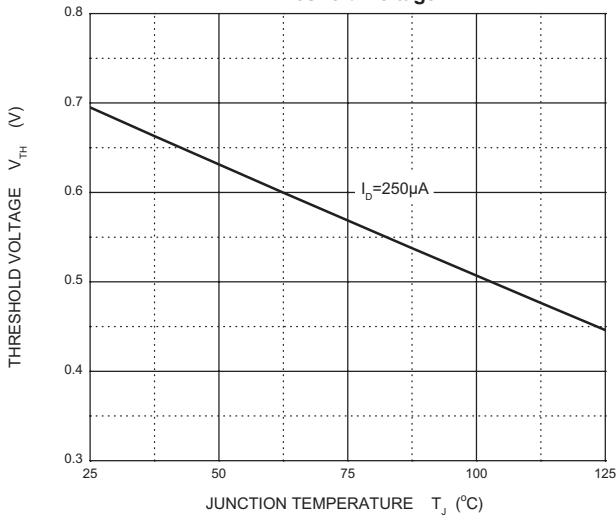
$R_{DS(ON)}$ — V_{GS}



I_S — V_{SD}



Threshold Voltage



TM

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Ordering Information :

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

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

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