Elektronische Bauelemente

SSN3134K

0.75 A, 20 V, $R_{DS(ON)}$ 380 mΩ
N-Channel Enhancement MOSFET

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

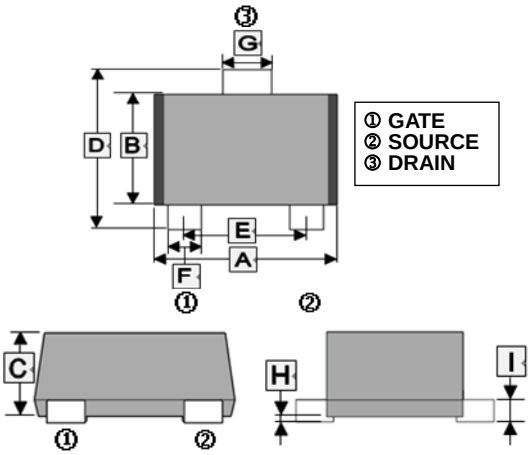
FEATURES

- Low on-resistance
- Fast switching speed
- Drive circuits can be simple
- Parallel use is easy
- Low voltage drive makes this device ideal for portable equipment

APPLICATION

- Interfacing
- Switching

SOT-723



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.150	1.250	F	0.170	0.270
B	0.750	0.850	G	0.270	0.370
C	-	0.500	H	0	0.050
D	1.150	1.250	I	-	0.150
E	0.800TYP.				

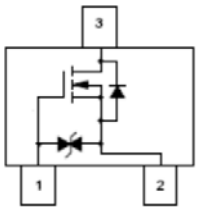
MARKING

KF

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-723	8K	7 inch

Top View



MAXIMUM RATINGS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	±12	V
Continuous Drain Current [1]	I_D	0.75	A
Pulsed Drain Current (tp=10μs)	I_{DM}	1.8	A
Total Power Dissipation [1]	P_D	150	mW
Thermal Resistance Junction-ambient [1]	$R_{\theta JA}$	833	°C / W
Lead Temperature for Soldering Purposes (1/8" from case for 10S)	T_L	260	°C
Operating Junction & Storage Temperature Range	T_J, T_{STG}	150, -55~150	°C

Notes:
1. Surface mounted on FR4 board using the minimum recommended pad size

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Teat Conditions
Static						
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	20	-	-	V	V_{GS}=0, I_D=250μA
Zero Gate Voltage Drain Current	I_{DSS}	-	-	1	μA	V_{DS}=20V, V_{GS}=0
Gate-Body Leakage Current	I_{GSS}	-	-	±50	μA	V_{DS}=0, V_{GS}=±12V
Gate Threshold Voltage [1]	$V_{GS(th)}$	0.35	-	1	V	V_{DS}= V_{GS}, I_D=250μA
Drain-Source On-Resistance [1]	$R_{DS(ON)}$	-	-	380	mΩ	V_{GS}=4.5V, I_D=0.65A
		-	-	450		V_{GS}=2.5V, I_D=0.55A
		-	-	800		V_{GS}=1.8V, I_D=0.45A
Forward Transconductance [1]	g_{fs}	-	1.6	-	S	V_{DS}=10V, I_D=0.8A
Diode forward voltage	V_{SD}	-	-	1.2	V	I_S=0.15A, V_{DS}=0
Dynamic Characteristics [3]						
Input Capacitance	C_{iss}	-	79	-	pF	V_{DS}=16V, V_{GS}=0, f=1MHz
Output Capacitance	C_{oss}	-	13	-		
Reverse Transfer Capacitance	C_{rss}	-	9	-		
Switching Characteristics [3]						
Turn-On Delay Time [2]	$T_{d(on)}$	-	6.7	-	nS	V_{DS}=10V I_D=500mA V_{GS}=4.5V R_{GEN}=10Ω
Rise Time [2]	T_r	-	4.8	-		
Turn-Off Delay Time [2]	$T_{d(off)}$	-	17.3	-		
Fall Time [2]	T_f	-	7.4	-		

Notes:
1. Pulse Test : Pulse Width=300μs, Duty Cycle=2%.
2. Switching characteristics are independent of operating junction temperatures.
3. Guaranteed by design, not subject to producting.

CHARACTERISTIC CURVES