

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

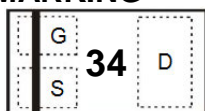
FEATURES

- ESD Protected Gate
- Low $R_{DS(ON)}$
- Surface Mount Package
- Operated at Low Logic Level Gate Drive

APPLICATIONS

- Load/ Power Switching
- Interfacing Switching
- Logic Level Shift
- Battery Management for Ultra Small Portable Electronics

MARKING



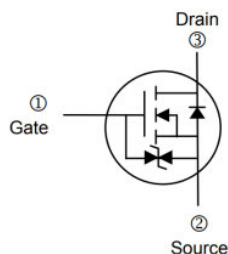
(Top View)

PACKAGE INFORMATION

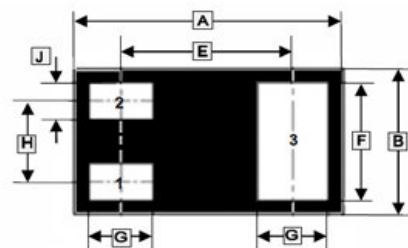
Package	MPQ	Leader Size
DFN1006-3L	10K	7 inch

ORDER INFORMATION

Part Number	Type
SWJ3134K-C	Lead (Pb)-free and Halogen-free

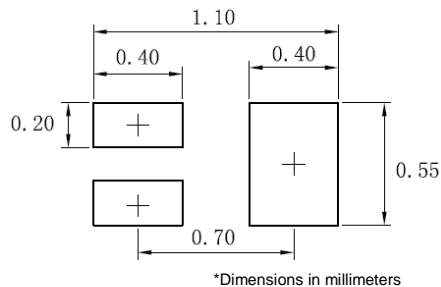


DFN1006-3L



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	0.95	1.075	F	0.45	0.55
B	0.55	0.675	G	0.20	0.30
C	0.40	0.55	H	0.35 TYP.	
D	0	0.05	J	0.15 TYP.	
E	0.65 TYP.				

Mounting Pad Layout



ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Rating	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 @ $t_p=10\mu\text{s}$	I_{DM}	1.8	A
Power Dissipation ¹	P_D	0.27	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}	-55~150	
Thermal Resistance Rating			
Thermal Resistance from Junction-Ambient ¹	$R_{\theta JA}$	460	°C/W

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

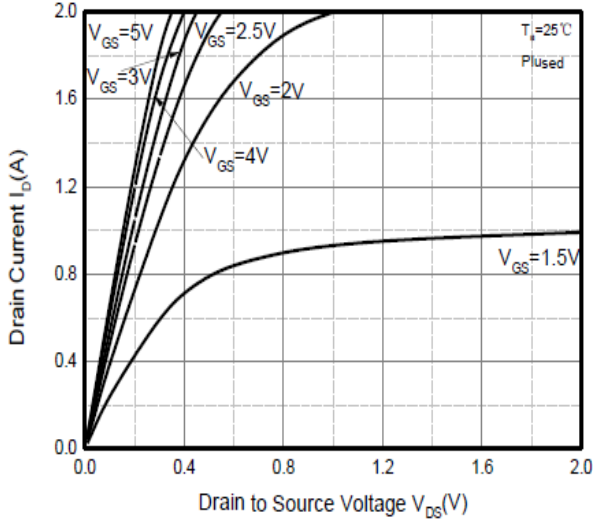
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Drain-Source Breakdown Voltage	V _{(BR)DSS}	20	-	-	V	V _{GS} =0V, I _D =250μA
Gate Threshold Voltage ²	V _{GS(th)}	0.35	-	1.1	V	V _{DS} =V _{GS} , I _D =250μA
Forward Transferconductance	g _{fs}	150	-	-	mS	V _{DS} =10V, I _D =150mA
Gate-Source Leakage Current	I _{GSS}	-	-	±20	μA	V _{DS} =0V, V _{GS} =±10V
Zero Gate Voltage Drain Current	I _{DSS}	-	-	1	μA	V _{DS} =20V, V _{GS} =0
Drain-Source On-Resistance ²	R _{DS(ON)}	-	250	500	mΩ	V _{GS} =4.5V, I _D =150mA
		-	300	700		V _{GS} =2.5V, I _D =150mA
		-	370	900		V _{GS} =1.8V, I _D =150mA
		-	460	-		V _{GS} =1.5V, I _D =20mA
		-	1200	-		V _{GS} =1.2V, I _D =10mA
Turn-On Delay Time	T _{d(on)}	-	6.7	-	nS	V _{DD} =10V V _{GS} =4.5V I _D =500mA R _G =10Ω
Rise Time	T _r	-	4.8	-		
Turn-Off Delay Time	T _{d(off)}	-	17.3	-		
Fall Time	T _f	-	7.4	-		
Input Capacitance	C _{ISS}	-	79	-	pF	V _{DS} =16V V _{GS} =0V f=1MHz
Output Capacitance	C _{OSS}	-	13	-		
Reverse Transfer Capacitance	C _{rss}	-	9	-		
Source-Drain Diode						
Forward Diode Voltage	V _{SD}	-	-	1.2	V	V _{GS} =0V, I _S =0.15A

Notes:

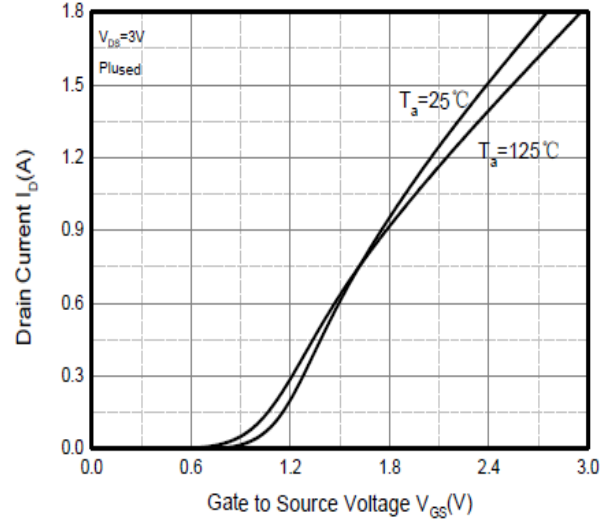
1. Surface Mounted on 1inch² FR4 Board with 2OZ copper
2. Pulse Test: Pulse Width ≤ 300μs, duty cycle ≤ 2%.

CHARACTERISTIC CURVES

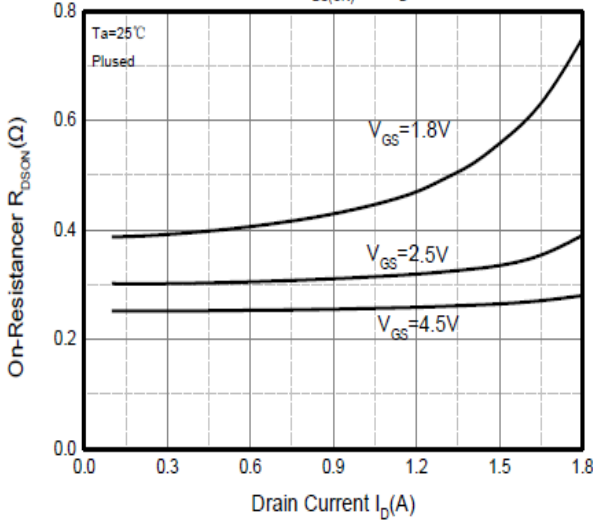
Output Characteristics



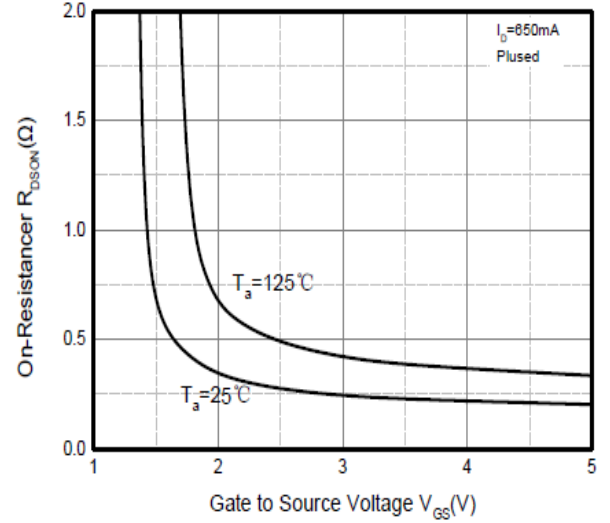
Transfer Characteristics



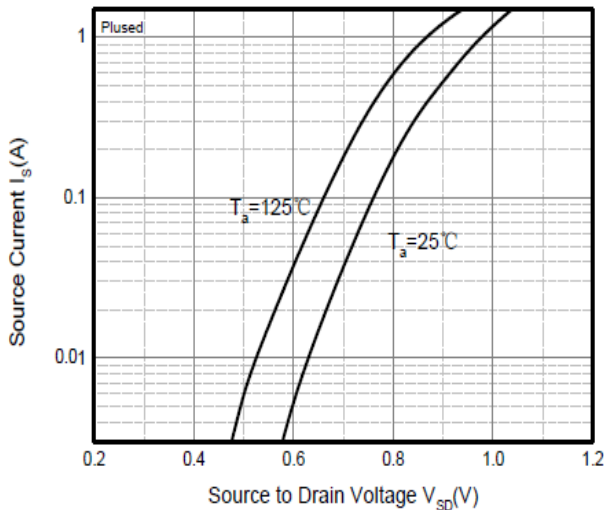
$R_{DS(ON)}$ — I_D



$R_{DS(ON)}$ — V_{GS}



I_S — V_{SD}



Threshold Voltage

