Elektronische Bauelemente

SWE3134J-C

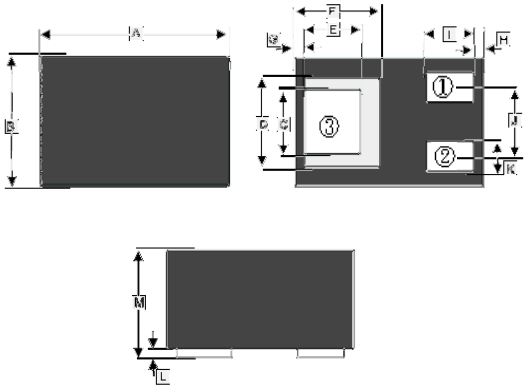
0.75A, 20V, $R_{DS(ON)}$ 380mΩ
N-Channel Enhancement MOSFET

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

FEATURES

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

WBFBP-03E



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	0.95	1.05	H	0.05REF.	
B	0.55	0.65	I	0.20	0.30
C	0.27	0.37	J	0.30	0.40
D	0.45REF.		K	0.10	0.20
E	0.27	0.37	L	0.01	0.10
F	0.45REF.		M	0.45	0.55
G	0.05REF.				

APPLICATIONS

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

MARKING

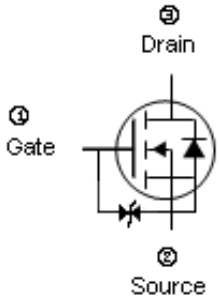
Top View

PACKAGE INFORMATION

Package	MPQ	Leader Size
WBFBP-03E	10K	7 inch

ORDER INFORMATION

Part Number	Type
SWE3134J-C	Lead (Pb)-free and Halogen-free



MAXIMUM RATINGS (T_A=25℃ unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Drain-Source Voltage	V_{DS}	20	V
Typical 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	100	mW
Lead Temperature for Soldering Purposes @1/8" from Case for 10s	T_L	260	℃
Operating Junction and Storage Temperature Range	T_J, T_{STG}	150, -55~150	℃
Thermal Resistance Ratings			
Thermal Resistance from Junction-Ambient [1]	$R_{\theta JA}$	1250	℃/W

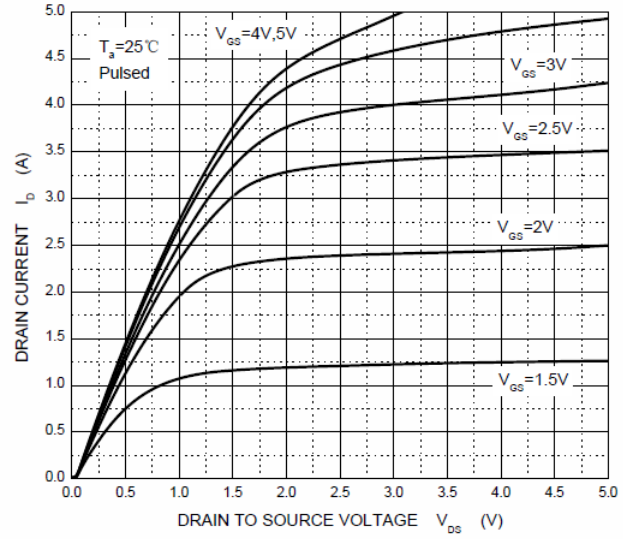
ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
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}	-	-	±20	μA	V_{DS}=0, V_{GS}= ±10V
Gate Threshold Voltage [2]	$V_{GS(th)}$	0.35	-	1.1	V	V_{DS}=V_{GS}, I_D=250μA
Drain-Source On-Resistance [2]	$R_{DS(ON)}$	-	-	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 Tranconductance [2]	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
Turn-on Delay Time	$T_{d(on)}$	-	6.7	-	nS	V_{DD}=4.5V V_{GS}=10V R_{GEN}=10Ω I_D=500mA
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}=0 f=1MHz
Output Capacitance	C_{oss}	-	13	-		
Reverse Transfer Capacitance	C_{rss}	-	9	-		

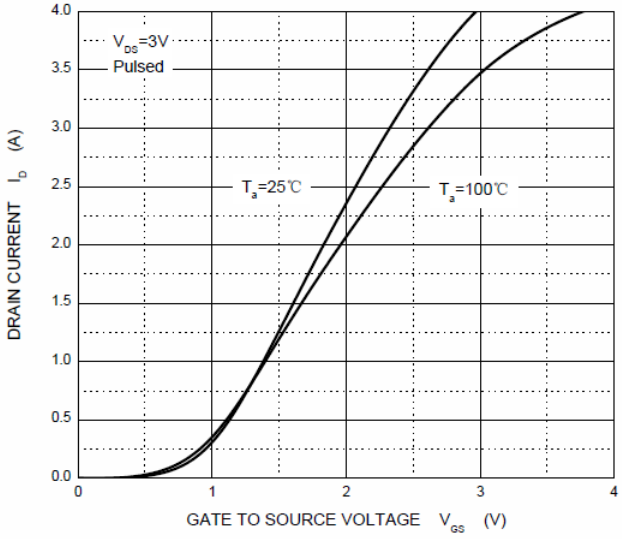
Notes:
1. Surface mounted on FR4 board using the minimum recommended pad size.
2. Pulse Test: pulse width=300μs, duty cycle≦2%.

CHARACTERISTIC CURVES

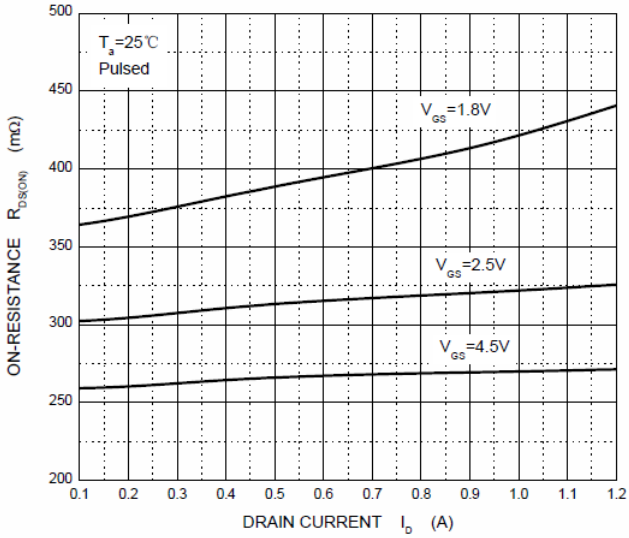
Output Characteristics



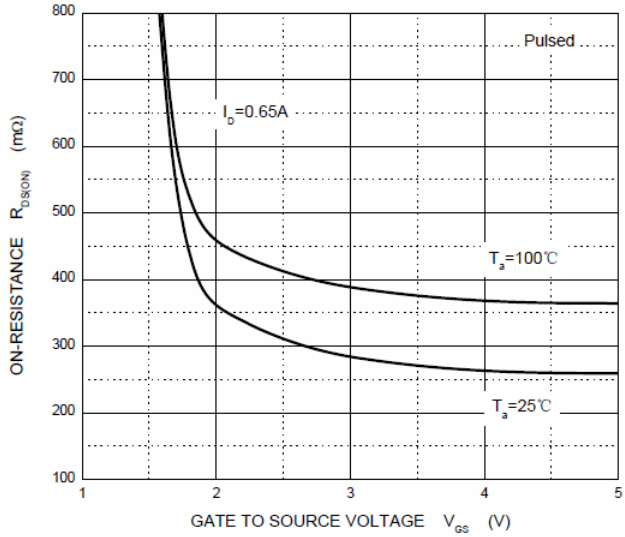
Transfer Characteristics



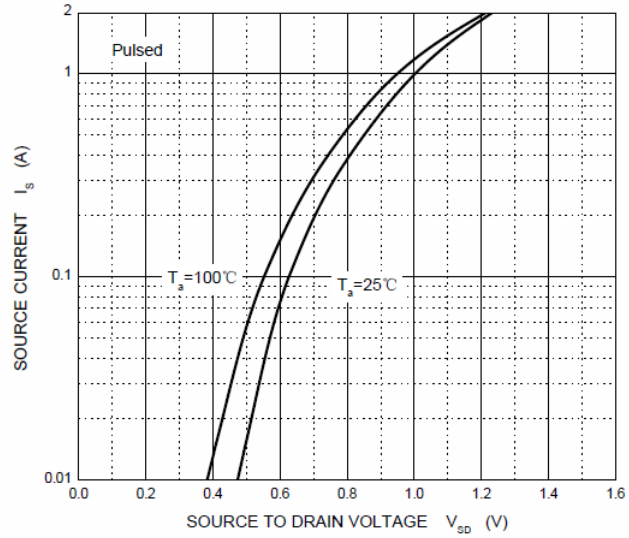
$R_{DS(ON)}$ —— I_D



$R_{DS(ON)}$ —— V_{GS}



I_S —— V_{SD}



Threshold Voltage