Elektronische Bauelemente

SSF72KW-C

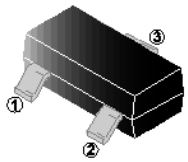
340mA, 60V, $R_{DS(ON)}$ 5Ω
N-Ch Enhancement Mode Power MOSFET

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

FEATURES

- Voltage Controlled Small Signal Switch
- High Density Cell Design for Low $R_{DS(ON)}$
- Rugged and Reliable
- ESD Protected
- Epoxy Meets UL 94 V-0 Flammability Rating

SOT-323

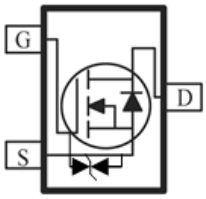


MARKING

72K

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-323	3K	7 inch



ORDER INFORMATION

Part Number	Type
SSF72KW-C	Lead (Pb)-free and Halogen-free

ABSOLUTE MAXIMUM RATINGS (T_A=25℃ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	±20	V
Continuous Drain Current	I_D	340	mA
Total Device Power Dissipation	P_D	200	mW
Operating Junction & Storage Temperature Range	T_J, T_{STG}	150, -55~150	℃
Thermal Resistance Ratings			
Thermal Resistance from Junction-Ambient	$R_{\theta JA}$	625	℃/W

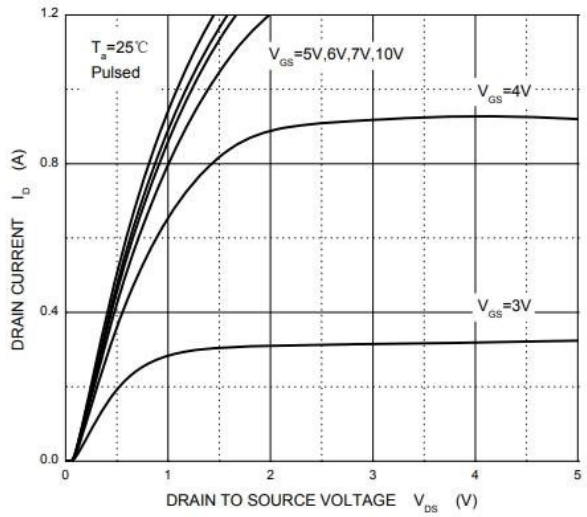
ELECTRICAL CHARACTERISTICS (T_J=25℃ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	60	-	-	V	V_{GS}=0, I_D=250μA
Gate-Source Breakdown Voltage	BV_{GSO}	±21.5	-	±30	V	I_{GS}= ±1mA (Open Drain)
Gate-Threshold Voltage [1]	$V_{GS(th)}$	1	-	2.5	V	V_{DS}=V_{GS}, I_D=1mA
Gate-Body Leakage Current	I_{GSS}	-	-	±10	μA	V_{DS}=0, V_{GS}= ±20V
Zero Gate Voltage Leakage Current	I_{DSS}	-	-	1	μA	V_{DS}=48V, V_{GS}=0
Drain-Source On-Resistance [1]	$R_{DS(ON)}$	-	-	5	Ω	V_{GS}=10V, I_D=500mA
		-	-	5.3		V_{GS}=4.5V, I_D=200mA
Turn-on Delay Time	$T_{d(on)}$	-	10	-	nS	V_{DD}=50V, V_{GS}=10V, R_L=250Ω, R_{GS}=50Ω, R_{GEN}=50Ω
Turn-off Delay Time	$T_{d(off)}$	-	15	-		
Input Capacitance	C_{iss}	-	40	-	pF	V_{DS}=10V V_{GS}=0 f=1MHz
Output Capacitance	C_{oss}	-	30	-		
Reverse Transfer Capacitance	C_{rss}	-	10	-		
Drain-Source Diode						
Diode Forward Voltage	V_{SD}	-	-	1.5	V	I_S=300mA, V_{GS}=0
Continuous Diode Forward Current	I_S	-	-	0.2	A	
Pulsed Diode Forward Current	I_{SM}	-	-	0.53	A	
Reverse recovery Time	t_{rr}	-	30	-	nS	V_{GS}=0V, I_S=300mA, V_R=25V, di/dt= -100A/μs
Recovered Charge	Q_r	-	30	-	nC	

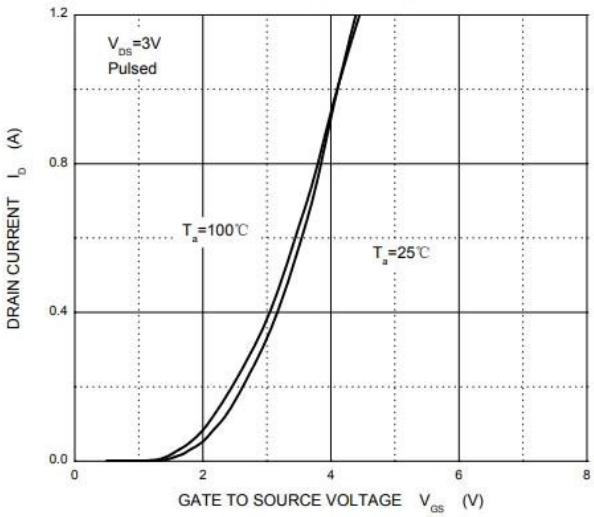
Note:
1. Pulse Test: Pulse width≦300μs, duty cycle≦2%.

CHARACTERISTIC CURVES

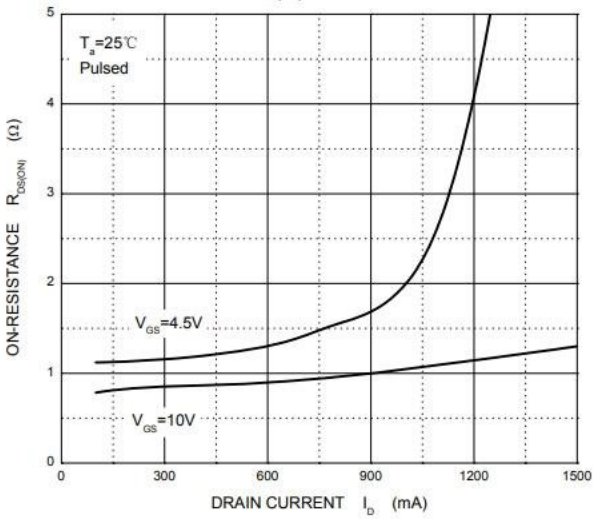
Output Characteristics



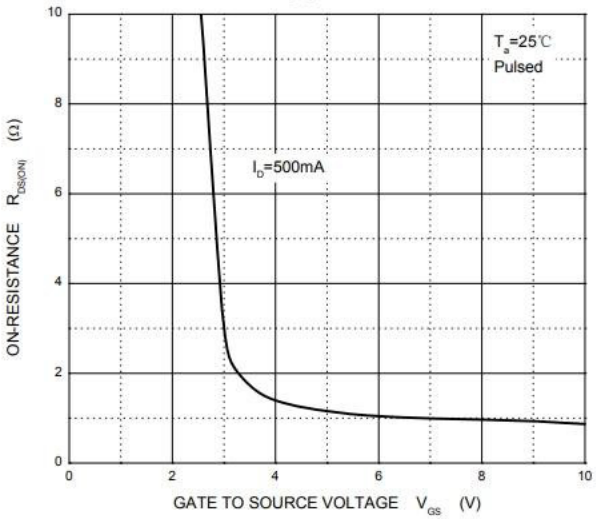
Transfer Characteristics



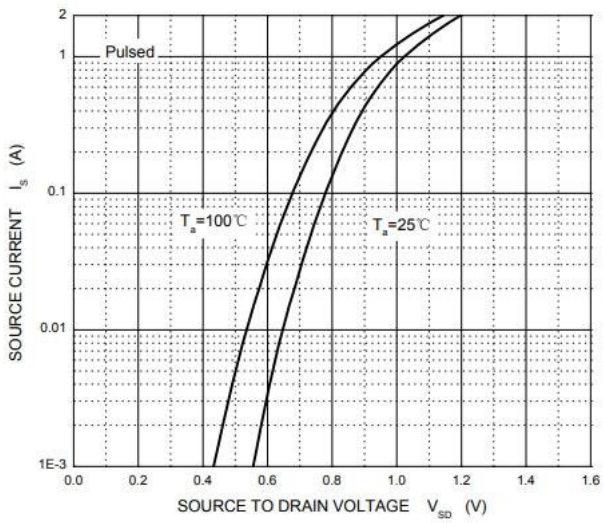
$R_{DS(ON)}$ — I_D



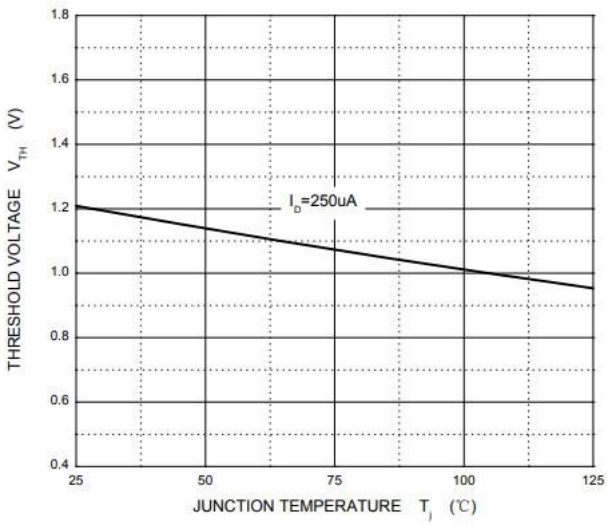
$R_{DS(ON)}$ — V_{GS}



I_S — V_{SD}

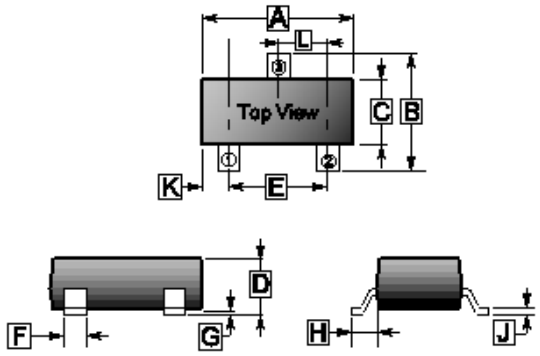


Threshold Voltage



PACKAGE OUTLINE DIMENSIONS

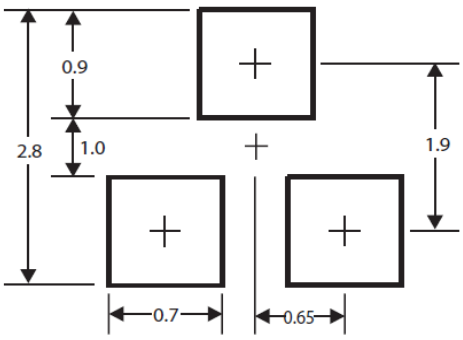
SOT-323



REF.	Millimeter	
	Min.	Max.
A	1.80	2.20
B	1.80	2.55
C	1.10	1.40
D	0.80	1.15
E	1.20	2.00
F	0.15	0.50
G	0.10 REF.	
H	0.525 REF.	
J	0.05	0.25
K	0.35 REF.	
L	0.65 TYP.	

MOUNTING PAD LAYOUT

SOT-323



*Dimensions in millimeters