Elektronische Bauelemente

SST2630

3.8A , 100V , $R_{DS(ON)}$ 130 mΩ
N-Ch Enhancement Mode Power MOSFET

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

DESCRIPTION

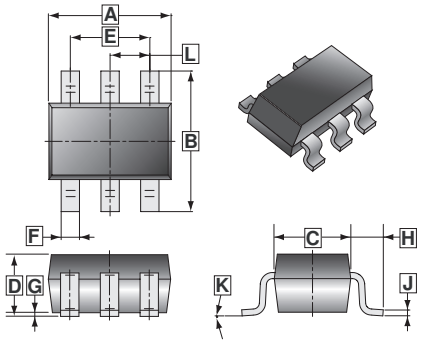
The SST2630 provide the designer with best combination of fast switching, low on-resistance and cost-effectiveness.

The SOT-26 package is universally used for all commercial-industrial surface mount applications.

FEATURES

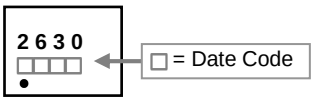
- Low on-resistance
- Capable of 2.5V gate drive
- Low drive current

SOT-26



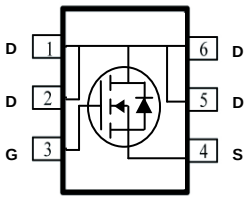
REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.10	G	0	0.10
B	2.60	3.00	H	0.60 REF.	
C	1.40	1.80	J	0.12 REF.	
D	1.30 MAX.		K	0°	10°
E	1.90 REF.		L	0.95 REF.	
F	0.30	0.50			

MARKING



PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-26	3K	7 inch



ABSOLUTE MAXIMUM RATINGS

Parameter		Symbol	Ratings	Unit
Drain-Source Voltage		V_{DS}	100	V
Gate-Source Voltage		V_{GS}	±20	V
Continuous Drain Current, V_{GS}=4.5V [3]	T_A=25℃	I_D	3.8	A
	T_A=70℃		3	
Pulsed Drain Current [1]		I_{DM}	14	A
Power Dissipation	T_A=25℃	P_D	2	W
Linear Derating Factor			0.016	W / ℃
Operating Junction and Storage Temperature Range		T_J, T_{stg}	-55~150	℃
Thermal Resistance Rating				
Maximum Junction to Ambient [3]		$R_{\theta JA}$	62.5	℃ / W

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

Parameter		Symbol	Min.	Typ.	Max.	Unit	Teat Conditions
Static							
Drain-Source Breakdown Voltage		BV_{DSS}	100	-	-	V	V_{GS}=0, I_D=250uA
Breakdown Voltage Temperature Coefficient		$\triangle BV_{DS}/\triangle T_j$	-	0.067	-	V/℃	Reference to 25℃, I_D=1mA
Gate-Threshold Voltage		$V_{GS(th)}$	1	-	2.5	V	V_{DS}=V_{GS}, I_D=250uA
Gate-Body Leakage Current		I_{GSS}	-	-	±1	uA	V_{GS}=±80V
Drain-Source Leakage Current	T_J=25°C	I_{DSS}	-	-	10	uA	V_{DS}=60V, V_{GS}=0
	T_J=75°C		-	-	25		V_{DS}=48V, V_{GS}=0
Drain-Source On-Resistance [2]		$R_{DS(ON)}$	-	-	130	mΩ	V_{GS}=10V, I_D=8A
Forward Transconductance		g_{fs}	-	5	-	S	V_{DS}=20V, I_D=3A
Dynamic							
Total Gate Charge[2]		Q_g	-	8	-	nC	V_{DS}=80V, V_{GS}=10V, I_D=10A
Gate-Source Charge		Q_{gs}	-	1.5	-		
Gate-Drain (“Miller”)Charge		Q_{gd}	-	2.2	-		
Turn-on Delay Time[2]		$T_{d(on)}$	-	8	-	nS	V_{DS}=50V, V_{GS}=10V, R_G=3.3Ω, R_D=5Ω, I_D=10A
Rise Time		T_r	-	7	-		
Turn-off Delay Time		$T_{d(off)}$	-	20	-		
Fall Time		T_f	-	15	-		
Input Capacitance		C_{iss}	-	518	-	pF	V_{GS}=0V V_{DS}=15V, f=1.0MHz
Output Capacitance		C_{oss}	-	50	-		
Reverse Transfer Capacitance		C_{rss}	-	40	-		
Source-Drain Diode							
Diode Forward Voltage [2]		V_{SD}	-	-	1.2	V	I_S=8A, V_{GS}=0V

Notes:
1. Pulse width limited by Max. junction temperature.
2. Pulse width≦300us, duty cycle ≦2%
3. Surface mounted on 1 in^2 copper pad of FR4 board; 156℃/W when mounted on M in. copper pad.