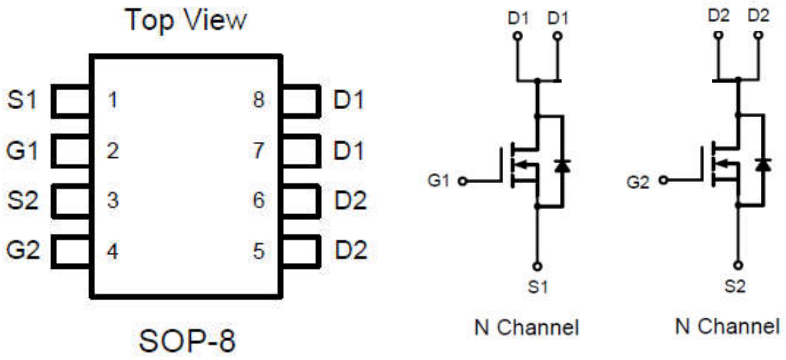
General Description

The CX3203 uses advanced trench technology to provide excellent $R_{DS(ON)}$ and low gate charge.The complementary MOSFETs may be used to form a level shifted high side switch,and for a host of other applications.

Pin Description



Featuration

- N-Channel
  36V/7A,
  $R_{DS(ON)}$=20mΩ (MAX.) @ V_{GS}=10V
  $R_{DS(ON)}$=30mΩ (MAX.) @ V_{GS}=4.5V
- Super High Dense Cell Design
  - Reliable and Rugged

Applications

- Power Management in Notebook Computer
- Portable Equipment
- Battery Powered Systems

Maximum Ratings (Ta = 25℃)

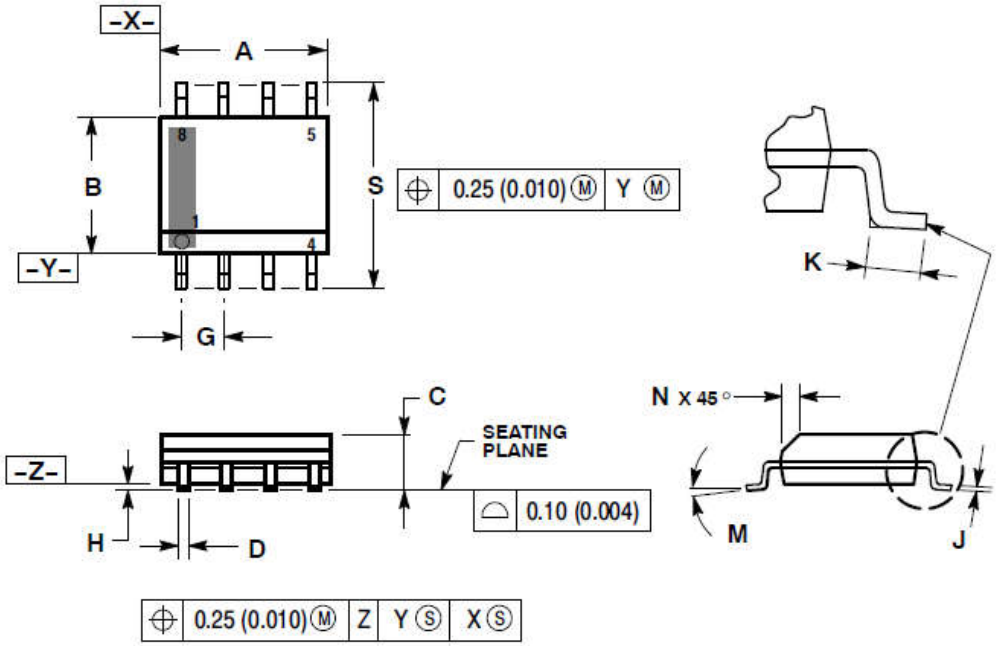
Parameter	Symbol		Value		Units
			N1	N2	
Drain to Source Voltage	V_{DSS}		36	36	V
Gate to Source Voltage	V_{GSS}		±20	±20	V
Continuous Drain Current	I_D	25℃	7	7	A
		85℃	5.6	5.6	A
Pulsed Drain Current	$I_{D(pulse)}$		28	28	A
Maximum Power Dissipation	$P_{D(25℃)}$		1.5		W
Operating Junction Temperature	T_J		+150		℃
Storage Temperature	T_{STG}		-55-+150		℃
Lead Temperature for Soldering Purposes(1/8″ from case for 10 s)	T_L		260		°C

Electrical Characteristics (TA = 25℃)

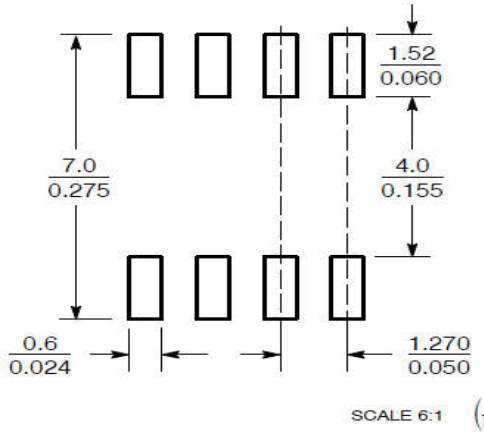
Parameter	Symbol	Test Conditions	MIN	TYP	MAX	Units
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V, I_{DS}=250uA	36			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=30V,V_{GS}=0V			1	uA
Gate Leakage Current	I_{GSS}	V_{GS}=±20V,V_{DS}=0V			±100	nA
Gate threshold voltage	$V_{GS(TH)}$	V_{DS}=V_{GS},I_D= 250μA	1.0	2.0	2.5	V
Drain to Source On-state Resistance	$R_{DS(on)}$	V_{GS}=10V,I_D=3.0A		15	20	mΩ
		V_{GS}= 4.5V,I_D=3.0A		25	30	mΩ
Input Capacitance	C_{ISS}	V_{DS}=20V , V_{GS}=0V , f=1MHz		570		pF
Output Capacitance	C_{OSS}			80		pF
Reverse Transfer Capacitance	C_{RSS}			67		pF
Total Gate Charge	Qg	V_{DS}=24V , V_{GS}=10V , ID=7A		6.2		nC
Gate-Source Charge	Qgs			2.4		nC
Gate-Drain Charge	Qgd			2.3		nC
Drain-Source Diode Forward Voltage	V_{SD}	Is=1.0A,V_{GS}=0V		0.8	1.3	V

Package Dimensions:

SOP-8



SOLDERING FOOTPRINT*



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	4.80	5.00	0.189	0.197
B	3.80	4.00	0.150	0.157
C	1.35	1.75	0.053	0.069
D	0.33	0.51	0.013	0.020
G	1.27 BSC		0.050 BSC	
H	0.10	0.25	0.004	0.010
J	0.19	0.25	0.007	0.010
K	0.40	1.27	0.016	0.050
M	0°	8°	0°	8°
N	0.25	0.50	0.010	0.020
S	5.80	6.20	0.228	0.244