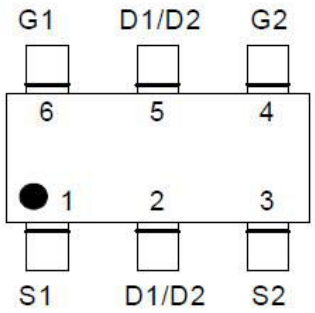
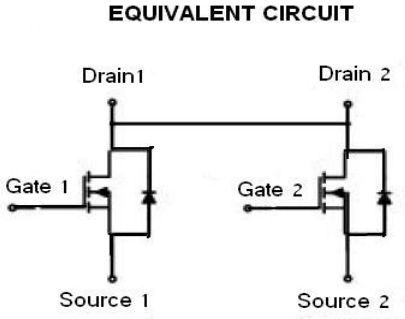
General Description

The HX8208 is a dual N-channel MOS Field Effect Transistor which uses advanced trench technology to provide excellent RDS(on) , low gate charge and operation with low gate voltages. This device is suitable for use as a load switch.





Featuration

- $V_{DS(max)}$ = 20V;
- $I_{D(max)}$= 5.0A;
- Low on-state resistance
  $R_{DS\ (on)}$ =16mΩ TYP. (V_{GS} =4.5V)
  $R_{DS\ (on)}$ =22mΩ TYP.(V_{GS} = 2.5V)
- Lead free product is acquired;
- Surface Mount Package;

Applications

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

Maximum Ratings (Ta = 25℃)

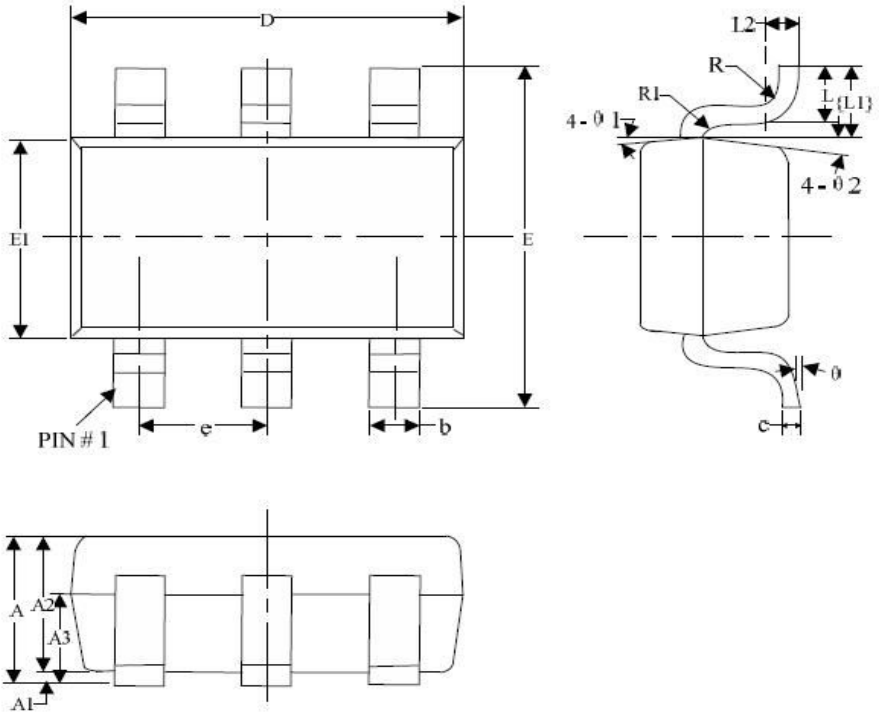
Parameter	Symbol		Value	Units
Drain to Source Voltage	VDSS		20	V
Gate to Source Voltage	VGSS		±10	V
Continuous Drain Current	25℃	ID	5.0	A
	85℃		4.0	A
Pulsed Drain Current	ID(pulse)		20	A
Maximum Power Dissipation	25℃	PD	1.05	W
Operating Junction Temperature	TJ		+150	℃
Storage Temperature	TSTG		-55--+150	℃
Lead Temperature for Soldering Purposes (1/8″ from case for 10 s)	TL		260	°C

Electrical Characteristics (TA = 25℃)

Parameter	Symbol	Test Conditions	MIN.	TYP.	MAX.	Units
Drain-Source Breakdown Voltage	BVDSS	V_{GS}=0V, I_{DS}=250uA	19.5			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}= 19.5V,V_{GS}=0V			1	uA
Gate Leakage Current	I_{GSS}	V_{GS}=±10V,V_{DS}=0V			±100	nA
Gate threshold voltage	V_{GS}(th)	V_{DS}=V_{GS},I_D= 250μA	0.55	0.65	1.1	V
Drain to Source On-state Resistance	$R_{DS(on)}$	V_{GS}= 4.5V,I_D=3.0A		16	22	mΩ
		V_{GS}= 2.5V,I_D=2.0A		22	29	mΩ
Drain-Source Diode Forward Voltage	V_{SD}	Is=2.8A,V_{GS}=0V		0.7	1.3	V

Package Dimensions:

SOT23-6



Dimensions（unit：mm）

SYMBOL	MIN	NOM	MAX		SYMBOL	MIN	NOM	MAX
A	-	-	1.30		e	0.85	0.95	1.05
A1	0	-	0.15		L	0.35	0.45	0.60
A2	0.90	1.10	1.30		L1		0.59REF	
A3	0.60	0.65	0.70		L2		0.25BSC	
b	0.39	-	0.49		R	0.05	-	-
c	0.12	-	0.19		R1	0.05	-	0.02
D	2.85	2.95	3.15		θ	0°	-	8°
E	2.60	2.80	3.00		θ1	3°	5°	7°
E1	1.55	1.65	1.75		θ2	6°	8°	10°