

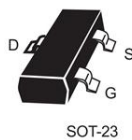
General Features

- 20V, 2.8A, $R_{DS(ON)} = 83m\Omega$ (typ) @ $V_{GS} = 4.5V$.
- $R_{DS(ON)} = 120m\Omega$ (typ) @ $V_{GS} = 2.5V$.
- Lead free product is acquired.
- Rugged and reliable.
- SOT-23 package.

Application

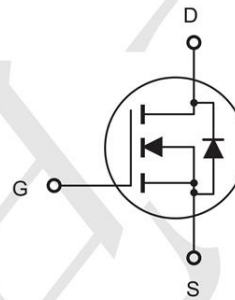
- Battery protection
- Load switch
- Power management

Package and Pin Configuration



MARKING =A2SHB

Circuit diagram



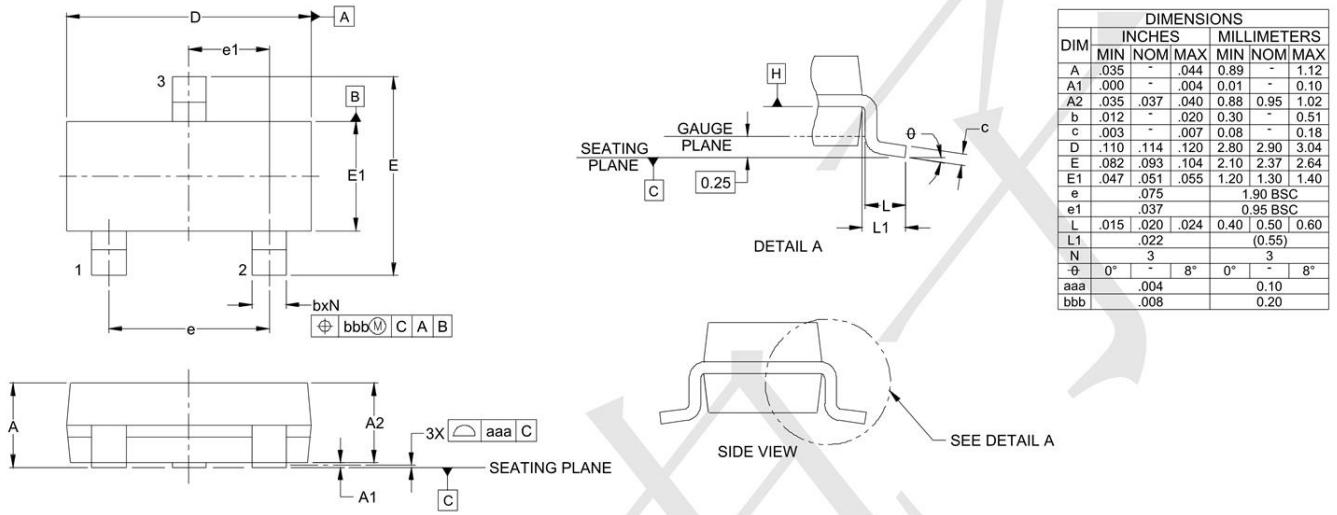
Absolute Maximum Ratings ($T_A=25^\circ C$ unless otherwise specified)

Characteristic	Symbol	Max	Unit
Drain-Source Voltage	BV_{DSS}	20	V
Gate- Source Voltage	V_{GS}	± 8	V
Drain Current (continuous)	I_D	2.8	A
Drain Current (pulsed)	I_{DM}	10	A
Total Device Dissipation $T_A=25^\circ C$	P_D	900	mW
Junction	T_J	150	$^\circ C$
Storage Temperature	T_{stg}	-55to+150	$^\circ C$

Electrical Characteristics (TA=25°C unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage ($I_D = 250\mu A, V_{GS} = 0V$)	BV_{DSS}	20	—	—	V
Gate Threshold Voltage ($I_D = 250\mu A, V_{GS} = V_{DS}$)	$V_{GS(th)}$	0.4	—	1.5	V
Drain-Source On Voltage ($I_D = 50mA, V_{GS} = 5V$) ($I_D = 500mA, V_{GS} = 10V$)	$V_{DS(ON)}$	—	—	0.375 3.75	V
Diode Forward Voltage Drop ($I_S = 0.75A, V_{GS} = 0V$)	V_{SD}	—	—	1.2	V
Zero Gate Voltage Drain Current ($V_{GS} = 0V, V_{DS} = 16V$) ($V_{GS} = 0V, V_{DS} = 16V, T_A = 55^\circ C$)	I_{DSS}	—	—	1 10	μA
Gate Body Leakage ($V_{GS} = \pm 8V, V_{DS} = 0V$)	I_{GSS}	—	—	± 100	nA
Static Drain-Source On-State Resistance ($I_D = 2.8A, V_{GS} = 4.5V$) ($I_D = 2A, V_{GS} = 2.5V$)	$R_{DS(ON)}$	—	—	85 120	$m\Omega$
Input Capacitance ($V_{GS} = 0V, V_{DS} = 6V, f = 1MHz$)	C_{ISS}	—	—	880	pF
Common Source Output Capacitance ($V_{GS} = 0V, V_{DS} = 6V, f = 1MHz$)	C_{OSS}	—	—	270	pF
Turn-ON Time ($V_{DS} = 6V, I_D = 1A, R_{GEN} = 6\Omega$)	$t_{(on)}$	—	—	20	ns
Turn-OFF Time ($V_{DS} = 6V, I_D = 1A, R_{GEN} = 6\Omega$)	$t_{(off)}$	—	—	65	ns

Outline Drawing - SOT23



Land Pattern - SOT23

