Application

Battery protection

Power management

Load switch



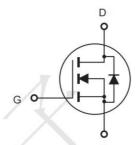
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General Features

- 20V, 2.6.A, $R_{DS(ON)} = 83m\Omega$ (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.

Ordering Information

Part Number	Qty per Reel	Reel Size		
SI2302	3000	7"		



SOT-23

MARKING =A2SHB

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Characteristic	Symbol	Max	Unit	
Drain-Source Voltage	$\mathrm{BV}_{\mathrm{DSS}}$	20	V	
Gate- Source Voltage	V_{GS}	<u>+</u> 8	V	
Drain Current (continuous)	I_D	2.6	A	
Drain Current (pulsed)	I_{DM}	10	A	
Total Device Dissipation TA=25°C	P_{D}	900	mW	
Junction	$T_{\rm J}$	150	°C	
Storage Temperature	$T_{ m stg}$	-55to+150	$^{\circ}\!$	



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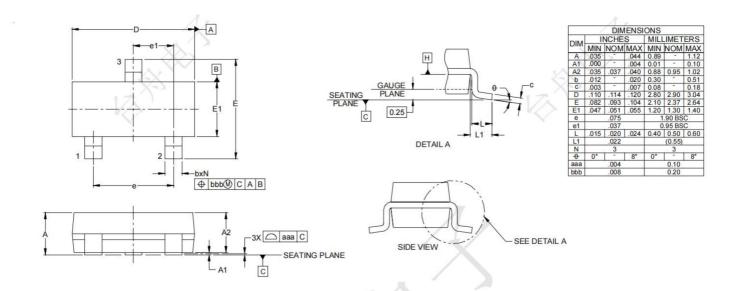
Electrical Characteristics (TA=25°C unless otherwise specified)

Characteristic	Symbol	Min	Тур	Max	Unit
Drain-Source Breakdown Voltage (I _D = 250uA,V _{GS} =0V)	BV _{DSS}	20	_	-3	< v
Gate Threshold Voltage (I _D = 250uA, V _{GS} = V _{DS})	VGS(th)	0.4	_	1.5	V
Drain-Source On Voltage $(I_D=50\text{mA},V_{GS}=5V)$ $(I_D=500\text{mA},V_{GS}=10V)$	V _{DS} (ON)		_	0.375 3.75	V
Diode Forward Voltage Drop (I _S = 0.75A,V _{GS} =0V)	V _{SD}	7	_	1.2	V
Zero Gate Voltage Drain Current (V _{GS} =0V, V _{DS} = 16V) (V _{GS} =0V, V _{DS} = 16V, T _A =55°C)	IDSS	X	_	1 10	uA
Gate Body Leakage (V _{GS} =±8V, V _{DS} =0V)	IGSS	>>	1	<u>+</u> 100	nA
Static Drain-Source On-State Resistance (I _D =2.6A,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)	Coss	_	·—	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

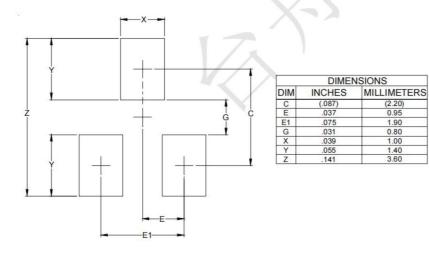


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Outline Drawing - SOT23



Land Pattern - SOT23



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