

Product Summary

BVDSS	RDSON	ID
30 V	55 mΩ	2.2A

Application

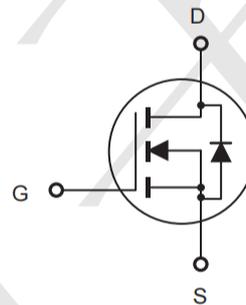
- Load/Power Switching
- Interfacing Switching
- Logic Level Shift

Package and Pin Configuration

SOT-23



Circuit diagram



Marking:



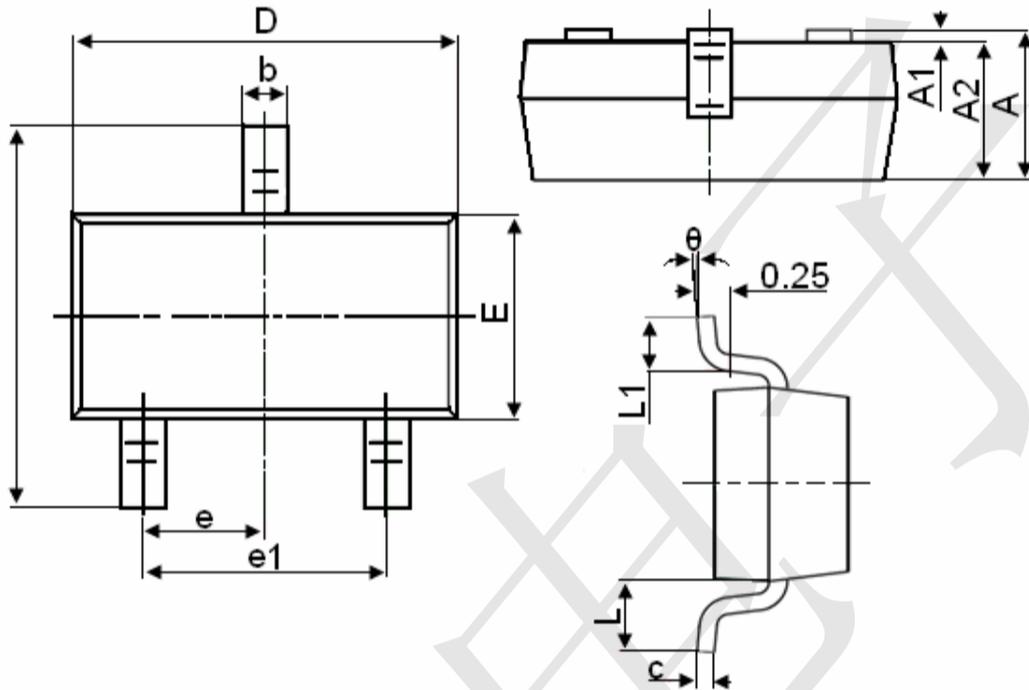
Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V _{DS}	30	V
Gate-Source Voltage	V _{GS}	±8	
Drain Current(continuous)	I _D	2.2	A
Drain Current(pulsed)	I _{DM}	10	
Power Dissipation	P _D	0.5	W
Thermal Resistance from Junction to Ambient (t≤5s)	R _{θJA}	625	°C/W
Operating Junction	T _J	150	°C
Storage Temperature	T _{STG}	-55 ~+150	

Electrical Characteristics ($T_J=25\text{ }^\circ\text{C}$, unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Static Characteristics						
Drain-source breakdown voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = 10\mu A$	30			V
Gate-threshold voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 50\mu A$	0.4		1	V
Gate-body leakage	I_{GSS}	$V_{DS} = 0V, V_{GS} = \pm 8V$			± 100	nA
Zero gate voltage drain current	I_{DSS}	$V_{DS} = 20V, V_{GS} = 0V$			1	μA
Drain-source on-resistance ¹	$R_{DS(on)}$	$V_{GS} = 4.5V, I_D = 2.2A$		0.055	0.065	Ω
		$V_{GS} = 2.5V, I_D = 2A$		0.070	0.090	
Forward transconductance ¹	g_{fs}	$V_{DS} = 5V, I_D = 3.6A$		8		S
Diode forward voltage	V_{SD}	$I_S = 0.94A, V_{GS} = 0V$			1.2	V
Switching Characteristics²						
Input capacitance ²	C_{iss}	$V_{DS} = 10V, V_{GS} = 0V, f = 1MHz$		300		pF
Output capacitance ²	C_{oss}			120		
Reverse transfer capacitance ²	C_{rss}			80		
Turn-on delay time	$t_{d(on)}$	$V_{DS} = 5V, V_{GS} = 4.5V, R_{gen} = 6\Omega$		7		ns
Turn-off delay time	$t_{d(off)}$			15		

SOT-23 Package Information



Symbol	Dimensions in Millimeters	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

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