

Product Summary

BVDSS	RDSON	ID
30 V	55 mΩ	2.2A

Application

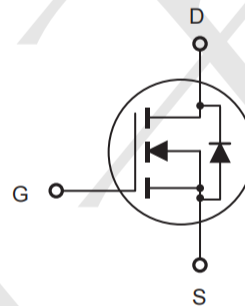
- Load/Power Switching
- Interfacing Switching
- Logic Level Shift

Package and Pin Configuration

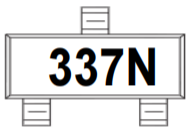
SOT-23



Circuit diagram



Marking:



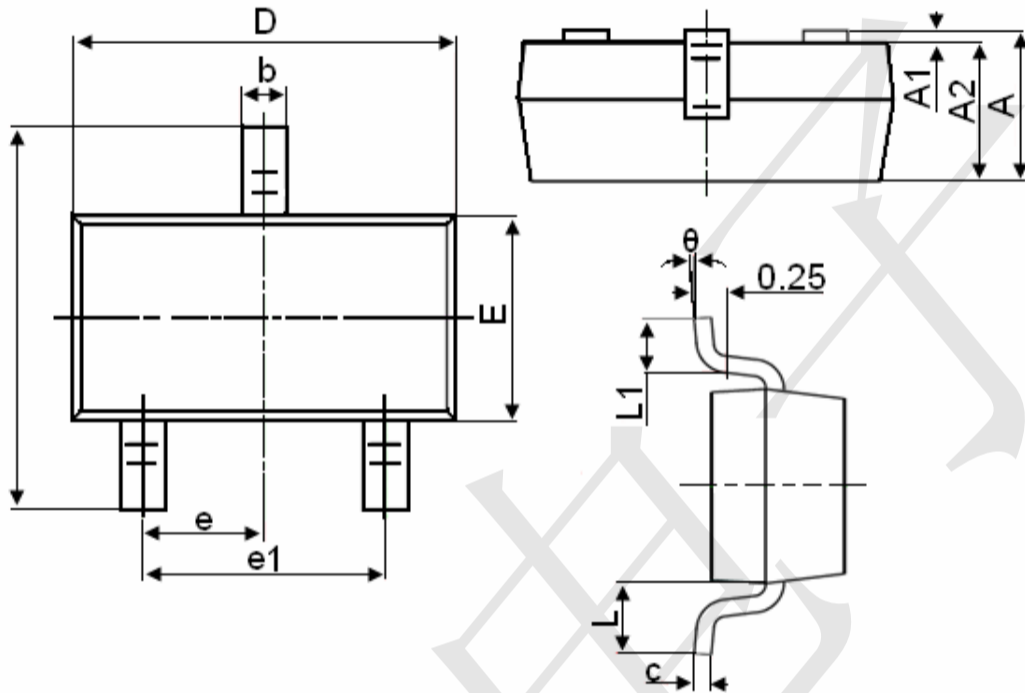
Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

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	°CW
Operating Junction	T _J	150	°C
Storage Temperature	T _{STG}	-55 ~+150	

Electrical Characteristics (T_J=25 °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 = 10μA	30			V
Gate-threshold voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 50μA	0.4		1	
Gate-body leakage	I _{GSS}	V _{DS} = 0V, V _{GS} = ±8V			±100	nA
Zero gate voltage drain current	I _{DSS}	V _{DS} = 20V, V _{GS} = 0V			1	μA
Drain-source on-resistance ¹	R _{DSON}	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} = 6Ω		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
theta	0°	8°