

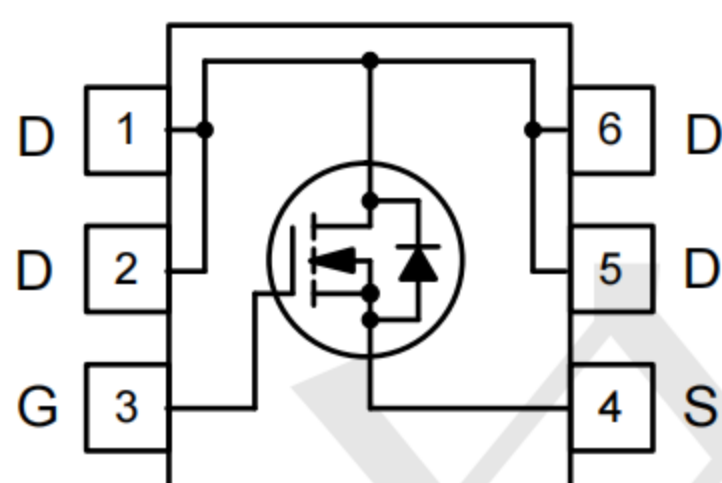
Features

- $V_{DS} = 200V$
- $I_D = 1.5A$
- $R_{DS(ON)} \leq 0.7\Omega @ V_{GS} = 10V$

Application

- Load/Power Switching
- Interfacing Switching
- Battery Management for Ultra Small Portable Electronics
- Logic Level Shift

Package and Pin Configuration



Marking:262P

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

Characteristics	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	200	V
Gate-Source Voltage	V_{GSS}	± 20	V
Continuous Drain Current	I_D	1.5	A
Pulsed Drain Current ⁽¹⁾	I_{DM}	4.5	A
Power Dissipation	P_d	1.6	W
Junction and Storage Temperature Range	T_J, T_{stg}	-55~150	$^\circ C$

Thermal Characteristics

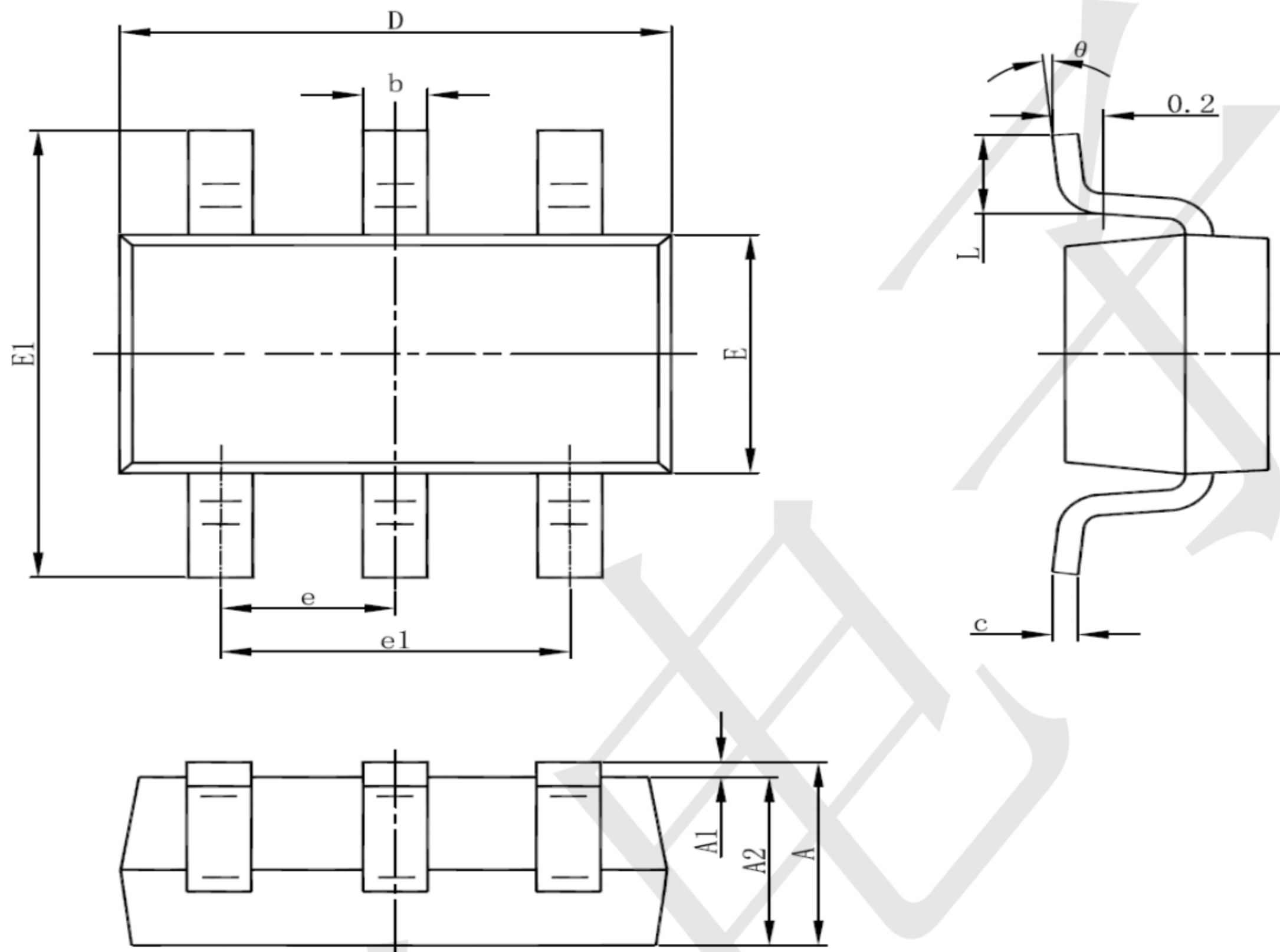
Characteristics	Symbol	Rating	Unit
Thermal Resistance, Junction-to-Ambient ⁽¹⁾	$R_{\theta JA}$	90	$^\circ C/W$
Thermal Resistance, Junction-to-Case ⁽¹⁾	$R_{\theta JC}$	30	

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

Characteristics	Symbol	Test Condition	Min	Typ	Max	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D = 250\mu\text{A}, V_{GS} = 0\text{V}$	200	-	-	V
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\mu\text{A}$	2.0	3.0	4.0	
Drain Cut-Off Current	I_{DSS}	$V_{DS} = 160\text{V}, V_{GS} = 0\text{V}$	-	-	1	μA
Gate Leakage Current	I_{GSS}	$V_{GS} = \pm 20\text{V}, V_{DS} = 0\text{V}$	-	-	100	nA
Drain-Source ON Resistance	$R_{DS(on)}$	$V_{GS} = 10\text{V}, I_D = 1.0\text{A}$	-	0.55	0.7	Ω
Forward Transconductance	g_{fs}	$V_{DS} = 10\text{V}, I_D = 1.0\text{A}$	-	4.0	-	S
Dynamic Characteristics						
Total Gate Charge	Q_g	$V_{DS} = 100\text{V}, V_{GS} = 10\text{V}, I_D = 1.0\text{A}$	-	5.1	-	nC
Gate-Source Charge	Q_{gs}		-	1.5	-	
Gate-Drain Charge	Q_{gd}		-	2.0	-	
Input Capacitance	C_{iss}	$V_{DS} = 100\text{V}, V_{GS} = 0\text{V}, f = 1\text{MHz}$	-	220	-	pF
Reverse Transfer Capacitance	C_{rss}		-	5.6	-	
Output Capacitance	C_{oss}		-	46.9	-	
Turn-On Delay Time	$t_{d(on)}$	$V_{DD} = 100\text{V}, I_D = 1\text{A}, V_{GS} = 10\text{V}, R_{GEN} = 6\Omega$	-	6.3	-	ns
Rise Time	t_r		-	6.3	-	
Turn-Off Delay Time	$t_{d(off)}$		-	19.5	-	
Fall Time	t_f		-	10.7	-	
Drain-Source Body Diode Characteristics						
Maximum Continuous Drain to Source Diode Forward Current	I_S		-	1.5	-	A
Source-Drain Diode Forward Voltage	V_{SD}	$I_S = 1.5\text{A}, V_{GS} = 0\text{V}$	-	-	1.4	V
Body Diode Reverse Recovery Time	t_{rr}	$I_F = 1.3\text{A}, di/dt = 100\text{A}/\mu\text{s}$	-	81	-	ns
Body Diode Reverse Recovery Charge	Q_{rr}		-	0.25	-	μC



SOT23-6 Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E	1.500	1.700	0.059	0.067
E1	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°