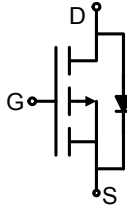
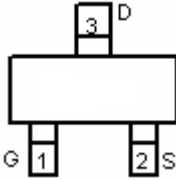



P-Channel Power MOSFET

<p>General Features</p> <ul style="list-style-type: none"> ● $V_{DS} = -20V, I_D = -2.8A$ $R_{DS(ON)} < 120m\Omega @ V_{GS} = -2.5V$ $R_{DS(ON)} < 100m\Omega @ V_{GS} = -4.5V$ ● High power and current handling capability ● Lead free product is acquired ● Surface mount package <p>Application</p> <ul style="list-style-type: none"> ● PWM applications ● Load switch ● Power management 	 <p>Schematic diagram</p>  <p>Marking and Pin Assignment</p>  <p>SOT-23 top view</p>
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MAXIMUM RATINGS

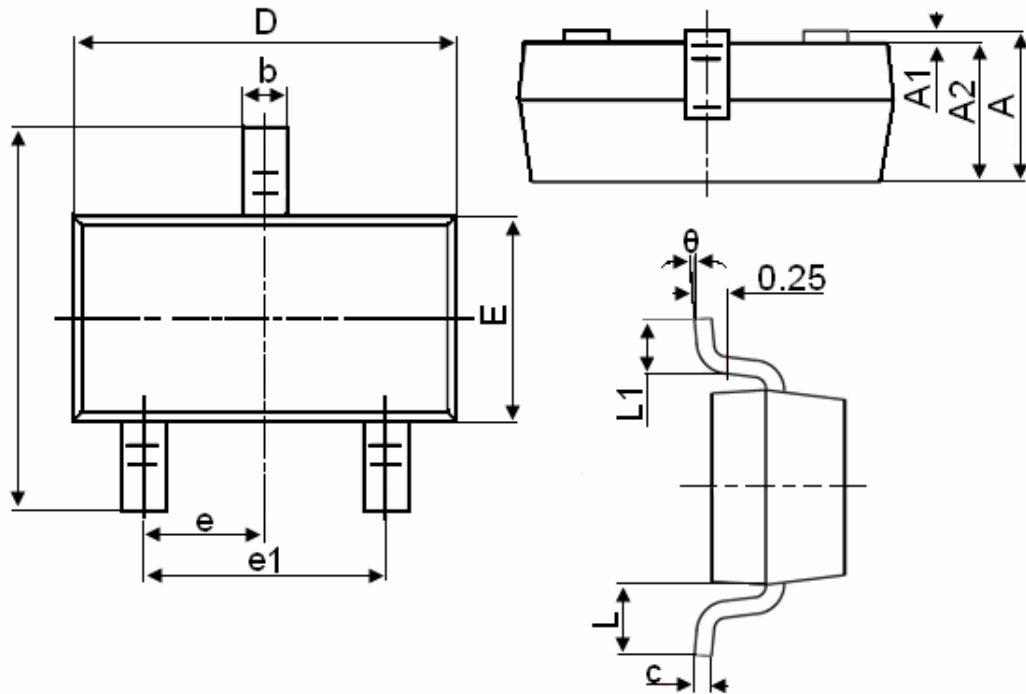
Characteristic	Symbol	Max	Unit
Drain-Source Voltage	BV_{DSS}	-20	V
Gate- Source Voltage	V_{GS}	± 10	V
Drain Current (continuous)	I_D	-2.8	A
Drain Current (pulsed)	I_{DM}	-10	A
Total Device Dissipation $T_A = 25^\circ C$	P_D	900	mW
Junction	T_J	150	$^\circ C$
Storage Temperature	T_{stg}	-55to+150	$^\circ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

ELECTRICAL CHARACTERISTICS

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

Characteristic	Symbol	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage ($I_D = -250\mu\text{A}, V_{GS}=0\text{V}$)	BV_{DSS}	-20	—	—	V
Gate Threshold Voltage ($I_D = -250\mu\text{A}, V_{GS} = V_{DS}$)	$V_{GS(th)}$	-0.5	—	-1.5	V
Diode Forward Voltage Drop ($I_S = -0.75\text{A}, V_{GS}=0\text{V}$)	V_{SD}	—	—	-1.5	V
Zero Gate Voltage Drain Current ($V_{GS}=0\text{V}, V_{DS} = -16\text{V}$) ($V_{GS}=0\text{V}, V_{DS} = -16\text{V}, T_A=55^{\circ}\text{C}$)	I_{DSS}	—	—	-1 -10	μA
Gate Body Leakage ($V_{GS}=\pm 10\text{V}, V_{DS}=0\text{V}$)	I_{GSS}	—	—	± 100	nA
Static Drain-Source On-State Resistance ($I_D = -2.8\text{A}, V_{GS} = -4.5\text{V}$)	$R_{DS(ON)}$	—	—	100	$\text{m}\Omega$
Static Drain-Source On-State Resistance ($I_D = -2\text{A}, V_{GS} = -2.5\text{V}$)	$R_{DS(ON)}$	—	—	120	$\text{m}\Omega$
Input Capacitance ($V_{GS}=0\text{V}, V_{DS} = -10\text{V}, f=1\text{MHz}$)	C_{ISS}	—	600	—	pF
Output Capacitance ($V_{GS}=0\text{V}, V_{DS} = -10\text{V}, f=1\text{MHz}$)	C_{OSS}	—	120	—	pF
Turn-ON Time ($V_{DS} = -10\text{V}, I_D = -2.8\text{A}, R_{GEN}=6\Omega$)	$t_{(on)}$	—	8	—	ns
Turn-OFF Time ($V_{DS} = -10\text{V}, I_D = -2.8\text{A}, R_{GEN}=6\Omega$)	$t_{(off)}$	—	60	—	ns

 Pulse Width $\leq 300\mu\text{s}$; Duty Cycle $\leq 2.0\%$

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°