



$V_{DS}$  30V  
 $I_b$  9A  
 $R_{DS(on)}$  (at  $V_{GS} = 10V$ ) 15mΩ  
 $R_{DS(on)}$  (at  $V_{GS} = 4.5V$ ) 18mΩ

Trench Power LV MOSFET technology  
 High density cell design for low  $R_{DS(on)}$   
 High Speed switching

Battery protection  
 Load switch  
 Power management

( $T_A = 25$  unless otherwise noted)

Drain-source Voltage		$V_{DS}$	30	V
Gate-source Voltage		$V_{GS}$	20	V
Drain Current	$T_A = 25$	$I_b$	9	A
	$T_A = 70$		72	
Pulsed Drain Current <sup>A</sup>		$I_{DM}$	50	A
Total Power Dissipation @ $T_A = 25$		$P_D$	1.25	W
Thermal Resistance Junction to Ambient <sup>B</sup>		$R_{JA}$	100	W
Junction and Storage Temperature Range		$T_J, T_{STG}$	-55 +150	

(Example)

YJ09N08A	F2	0309	3000	30000	120000	7'
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( $T_J=25$  unless otherwise noted)

<b>Drain-Source Breakdown Voltage</b>	$BV_{DS}$	$V_{GS}=0V, I_D=250\mu A$	<b>30</b>			<b>V</b>
<b>Zero Gate Voltage Drain Current</b>	$I_{DSS}$	$V_{DS}=30V, V_{GS}=0V$			<b>1</b>	<b><math>\mu A</math></b>
<b>Gate-Body Leakage Current</b>	$I_{GSS}$	$V_{GS}=20V, V_{DS}=0V$			<b>100</b>	<b>nA</b>
<b>Gate Threshold Voltage</b>	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	<b>1</b>	<b>1.5</b>	<b>2.5</b>	<b>V</b>
<b>Static Drain-Source On Resistance</b>	$R_{DS(on)}$	$V_{GS}=10V, I_D=60A$		<b>9</b>	<b>15</b>	<b>m</b>
		$V_{GS}=4.5V, I_D=50A$		<b>12</b>	<b>18</b>	
<b>Diode Forward Voltage</b>	$V_{SD}$	$I_S=9A, V_{GS}=0V$			<b>1.2</b>	<b>V</b>
<b>Maximum Body Diode Continuous Current</b>	$I_S$				<b>9</b>	<b>A</b>
<b>Output Capacitance</b>	$C_{oss}$	$V_{DS}=15V, V_{GS}=0V, f=1MHz$		<b>20</b>		<b>pF</b>









