

## 9435 (文件编号: S&CIC0802) 30V P-Channel Enhancement-Mode MOSFET

$V_{DS} = -30V$

$R_{DS(ON)}, V_{GS}@-10V, I_{DS}@-5.3A = 50m\Omega@TYP$

$R_{DS(ON)}, V_{GS}@-4.5V, I_{DS}@-4.2A = 70m\Omega@TYP$

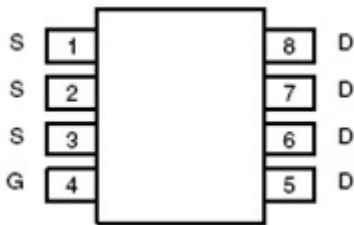
### Features

Advanced trench process technology

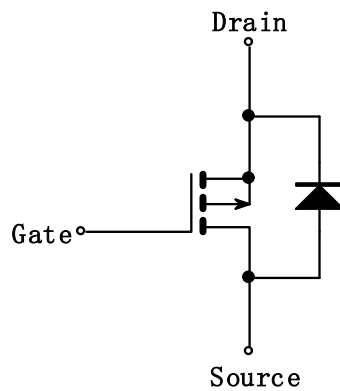
High Density Cell Design For Ultra Low On-Resistance

Improved Shoot-Through FOM

PACKAGE: SOP-8



Internal Schematic Diagram



### Maximum Ratings and Thermal Characteristics ( $T_A = 25^\circ C$ unless otherwise noted)

Parameter	Symbol	Limit	Unit
Drain-Source Voltage	$V_{DS}$	-30	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	
Continuous Drain Current	$I_D$	-5.3	A
Pulsed Drain Current <sup>1)</sup>	$I_{DM}$	-20	
Operating Junction and Storage Temperature Range	$T_J, T_{stg}$	-55 to 150	$^\circ C$

Note: 1. Repetitive Rating: Pulse width limited by the maximum junction temperature

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### Electrical Characteristics

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
<b>Static</b>						
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS} = 0V, I_D = -250\mu A$	-30	--	--	V
Drain-Source On-Stage Resistance	$R_{DS(on)}$	$V_{GS} = -4.5V, I_D = -4.2A$	--	70.0	90.0	$m\Omega$
Drain-Source On-Stage Resistance	$R_{DS(on)}$	$V_{GS} = -10V, I_D = -5.3A$	--	50.0	60.0	
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -250\mu A$	-1	-1.4	-3	V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = -24V, V_{GS} = 0V$	--	--	-1	$\mu A$
Gate Body Leakage	$I_{GSS}$	$V_{GS} = \pm 20V, I_{DS} = 0V$	--	--	$\pm 100$	nA
Forward Transconductance	$g_{fs}$	$V_{DS} = -10V, I_D = -5.3A$	--	10	--	S
<b>Source-Drain Diode</b>						
Max. Diode Forward Current	$I_S$	--	--	--	-2.6	A
Diode Forward Voltage	$V_{SD}$	$I_S = -2.6A, V_{GS} = 0V$	--	--	-1.3	V

Note: 1. Pulse test: pulse width  $\leq 300\mu s$ , duty cycle  $\leq 2\%$

2. Static parameters are based on package level with recommended wire-bonding

