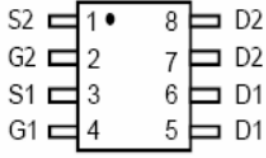
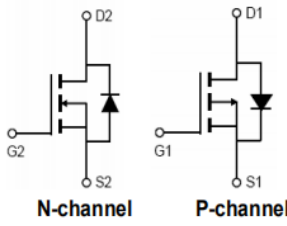
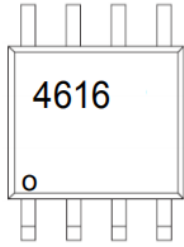




# SOP-8 Plastic-Encapsulate MOSFETS **4616**

## N and P-Channel Enhancement Mode Power MOSFET

<p><b>Description</b></p> <p>The 4616 uses advanced trench technology to provide excellent <math>R_{DS(ON)}</math> and low gate charge. The complementary MOSFETs may be used to form a level shifted high side switch, and for a host of other applications.</p> <p><b>General Features</b></p> <ul style="list-style-type: none"> <li>● <b>N-Channel</b>  <math>V_{DS} = 30V, I_D = 8.0A</math>  <math>R_{DS(ON)} &lt; 19m\Omega @ V_{GS}=10V</math>  <math>R_{DS(ON)} &lt; 25m\Omega @ V_{GS}=4.5V</math></li> <li>● <b>P-Channel</b>  <math>V_{DS} = -30V, I_D = -7.0A</math>  <math>R_{DS(ON)} &lt; 29m\Omega @ V_{GS}=-10V</math>  <math>R_{DS(ON)} &lt; 38m\Omega @ V_{GS}=-4.5V</math></li> <li>● High power and current handing capability</li> <li>● Lead free product is acquired</li> <li>● Surface mount package</li> </ul>	<p><b>SOP-8</b></p>  <p><b>Equivalent Circuit</b></p>  <p><b>MARKING</b></p>  <p>Y :year code    W :week code</p>
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### Absolute Maximum Ratings ( $T_A=25^\circ C$ unless otherwise noted)

Parameter		Symbol	N-Channel	P-Channel	Unit
Drain-Source Voltage		$V_{DS}$	30	-30	V
Gate-Source Voltage		$V_{GS}$	$\pm 20$	$\pm 20$	V
Continuous Drain Current	$T_A=25^\circ C$	$I_D$	8.0	-7.0	A
Pulsed Drain Current <sup>(Note 1)</sup>		$I_{DM}$	30	-30	A
Maximum Power Dissipation	$T_A=25^\circ C$	$P_D$	2.0	2.0	W
Operating Junction and Storage Temperature Range		$T_J, T_{STG}$	-55 To 150	-55 To 150	$^\circ C$

### Thermal Characteristic

Thermal Resistance, Junction-to-Ambient <sup>(Note 2)</sup>	$R_{\theta JA}$	N-Ch	62.5	$^\circ C/W$
Thermal Resistance, Junction-to-Ambient <sup>(Note 2)</sup>	$R_{\theta JA}$	P-Ch	62.5	$^\circ C/W$