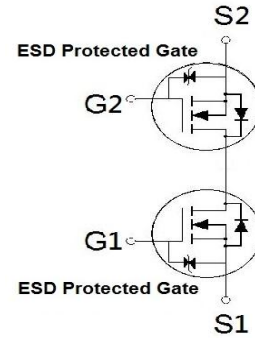
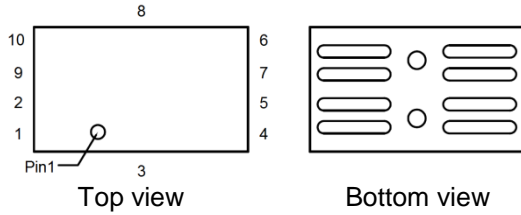




**PRODUCT SUMMARY**

$V_{(BR)SSS}$	$R_{SS(ON)}$	$I_S$
12V	2.75m $\Omega$	19A



**ABSOLUTE MAXIMUM RATINGS ( $T_A = 25\text{ }^\circ\text{C}$  Unless Otherwise Noted)**

PARAMETERS/TEST CONDITIONS	SYMBOL	LIMITS	UNITS
Source-Source Voltage	$V_{SSS}$	12	V
Gate-Source Voltage	$V_{GSS}$	$\pm 8$	V
Continuous Source Current	$I_S$	19	A
Pulsed Source Current <sup>1</sup>	$I_{SP}$	100	
Total Dissipation <sup>2</sup>	$P_T$	1.8	W
Thermal Resistance <sup>2</sup>	$R_{\theta JA}$	67	$^\circ\text{C} / \text{W}$
Operating Junction & Storage Temperature Range	$T_j, T_{stg}$	-55 to 150	$^\circ\text{C}$

<sup>1</sup> $PW \leq 10\mu s$ , duty cycle  $\leq 1\%$ .

<sup>2</sup>When mounted on 1in<sup>2</sup> FR-4 board.

**ELECTRICAL CHARACTERISTICS ( $T_J = 25\text{ }^\circ\text{C}$ , Unless Otherwise Noted)**

PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
<b>STATIC</b>						
Source-Source Breakdown Voltage	$V_{(BR)SSS}$	$V_{GS} = 0V, I_S = 1mA$	12			V
Gate Threshold Voltage	$V_{GS(th)}$	$V_{SS} = V_{GS}, I_S = 1mA$		0.9	1.4	
Gate-Source Leakage	$I_{GSS}$	$V_{SS} = 0V, V_{GS} = \pm 8V$			$\pm 10$	$\mu A$
		$V_{SS} = 0V, V_{GS} = \pm 5V$			$\pm 1$	
Zero Gate Voltage Source Current	$I_{SSS}$	$V_{SS} = 12V, V_{GS} = 0V$			1	$\mu A$
Source-Source On-State Resistance <sup>1</sup>	$R_{SS(ON)}$	$V_{GS} = 4.5V, I_S = 6A$		2.1	2.75	m $\Omega$
		$V_{GS} = 3.8V, I_S = 6A$		2.2	2.85	
		$V_{GS} = 3.1V, I_S = 6A$		2.4	3.95	
		$V_{GS} = 2.5V, I_S = 6A$		3.1	6.1	

DYNAMIC					
Input Capacitance	$C_{iss}$	$V_{GS} = 0V, V_{DS} = 10V, f = 100KHz$		2639	pF
Output Capacitance	$C_{oss}$			638	
Reverse Transfer Capacitance	$C_{rss}$			545	
Total Gate Chang <sup>2</sup>	$Qg$	$V_{SS} = 6V, V_{GS} = 4V$ $I_S = 6A$		32	nC
Turn-On Delay Time <sup>2</sup>	$t_{d(on)}$	$V_{SS} = 6V,$ $I_S \cong 6A, V_{GS} = 4V$		1.8	uS
Rise Time <sup>2</sup>	$t_r$			3.2	
Turn-Off Delay Time <sup>2</sup>	$t_{d(off)}$			4.6	
Fall Time <sup>2</sup>	$t_f$			5.5	
SOURCE-DRAIN DIODE RATINGS AND CHARACTERISTICS ( $T_J = 25\text{ }^\circ\text{C}$ )					
Forward Source-Source Voltage <sup>1</sup>	$V_F$	$I_S = 6A, V_{GS} = 0V$		0.6	V

<sup>1</sup>Pulse test : Pulse Width  $\leq 300\text{ }\mu\text{sec}$ , Duty Cycle  $\leq 2\%$ .

<sup>2</sup>Independent of operating temperature.