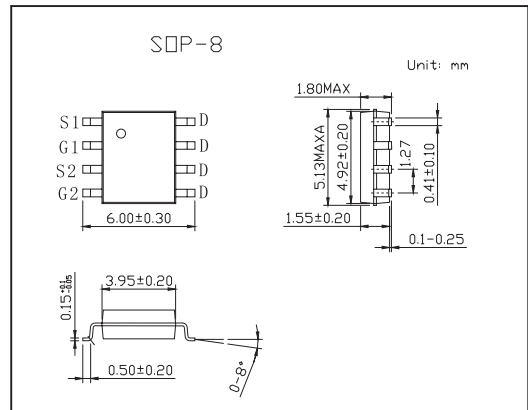
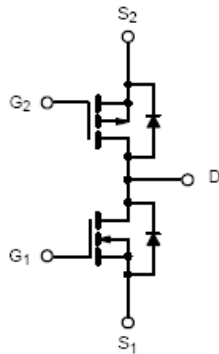


■ PIN Configuration



■ Absolute Maximum Ratings $T_A = 25^\circ\text{C}$

Parameter	Symbol	N-Channel	P-Channel	Unit	
Drain-Source Voltage	V_{DS}	30	-30	V	
Gate-Source Voltage	V_{GS}	± 20	± 20	V	
Continuous Drain Current ($T_J = 150^\circ\text{C}$)* $T_A = 25^\circ\text{C}$	I_D	± 6	± 6	A	
		$T_A = 70^\circ\text{C}$	± 4.7	± 4.7	A
Pulsed Drain Current	I_{DM}	± 30	± 30	A	
Continuous Source Current (Diode Conduction)*	I_S	2	-2	A	
Maximum Power Dissipation*	P_D	$T_A = 25^\circ\text{C}$		2.4	W
		$T_A = 70^\circ\text{C}$		1.5	W
Operating Junction and Storage Temperature Range	T_J, T_{stg}	-55 to 150		$^\circ\text{C}$	
Maximum Junction-to-Ambient *	R_{thJA}	52		$^\circ\text{C}/\text{W}$	

*Surface Mounted on FR4 Board, $t \leq 10$ sec.

■ Electrical Characteristics T_J = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit	
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250 μA	N-Ch	1			V
		V _{DS} = V _{GS} , I _D = -250 μA	P-Ch	-1			
Gate Body Leakage	I _{GSS}	V _{DS} = 0 V, V _{GS} = ±20 V	N-Ch			±100	nA
		V _{DS} = 0 V, V _{GS} = ±20 V	P-Ch			±100	
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = 30V, V _{GS} = 0 V	N-Ch			1	nA
		V _{DS} = -30V, V _{GS} = 0 V	P-Ch			-1	
		V _{DS} = 24 V, V _{GS} = 0 V, T _J = 70°C	N-Ch			5	μA
		V _{DS} = -24V, V _{GS} = 0 V, T _J = 70°C	P-Ch			-5	
On State Drain Currenta	I _{D(on)}	V _{DS} = 5 V, V _{GS} = 10 V	N-Ch	30			A
		V _{DS} = -5 V, V _{GS} = -10 V	P-Ch	-30			
		V _{DS} = 5 V, V _{GS} = 4.5 V	N-Ch	8			A
		V _{DS} = -5 V, V _{GS} = -4.5 V	P-Ch	-8			
Drain Source On State Resistance*	r _{DS(on)}	V _{GS} = 10 V, I _D = 6A	N-Ch		0.032	0.040	Ω
		V _{GS} = -10 V, I _D = -6A	P-Ch		0.032	0.040	
		V _{GS} = 4.5 V, I _D = 4.8A	N-Ch		0.045	0.060	
		V _{GS} = -4.5 V, I _D = -4.4A	P-Ch		0.056	0.070	
Forward Transconductance*	g _{fs}	V _{DS} = 15 V, I _D = 6A	N-Ch		13		S
		V _{DS} = -15 V, I _D = -6A	P-Ch		10.6		
Diode Forward Voltage*	V _{SD}	I _S = 2A, V _{GS} = 0 V	N-Ch		0.77	1.2	V
		I _S = -2A, V _{GS} = 0 V	P-Ch		0.77	-1.2	
Total Gate Charge	Q _g	N-Channel V _{DS} = 15 V, V _{GS} = 10V, I _D = 6A	N-Ch		16	30	nC
Gate Source Charge	Q _{gs}	P-Channel	N-Ch		3.4		
			P-Ch		5.4		
Gate Drain Charge	Q _{gd}	V _{DS} = -15 V, V _{GS} = -10 V, I _D = -6A	N-Ch		2.3		
			P-Ch		3.6		
Turn On Time	t _{d(on)}	N Channel V _{DD} = 15 V, R _L = 15 Ω	N-Ch		12	25	ns
Rise Time	t _r	I _D = 1A, V _{GEN} = 10V, R _g = 6 Ω	N-Ch		12	25	
			P-Ch		12	25	
Turn Off Delay Time	t _{d(off)}	P-Channel V _{DD} = -15 V, R _L = 15 Ω	N-Ch		27	55	
			P-Ch		38	55	
Fall Time	t _f	I _D = -1 A, V _{GEN} = -10 V, R _g = 6 Ω	N-Ch		24	50	
			P-Ch		25	50	
Source-Drain Reverse Recovery Time	t _{rr}	I _F = 2 A, di/dt = 100 A/μs	N-Ch		45	80	
		I _F = -2 A, di/dt = 100 A/μs	P-Ch		50	80	

* Pulse test; pulse width ≤ 300 μs, duty cycle ≤ 2%.