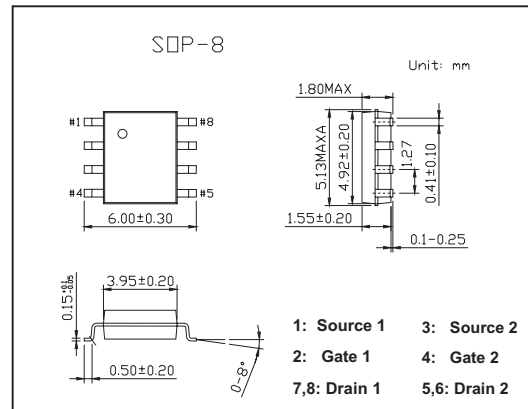
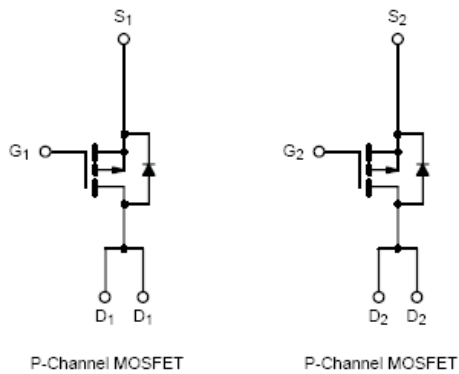


Dual P-Channel 30-V(D-S) MOSFET

KI4953DY

■ Features

- 100% Rg Tested

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

Parameter	Symbol	Rating	Unit	
Drain-Source Voltage	V_{DS}	-30	V	
Gate-Source Voltage	V_{GS}	± 20		
Continuous Drain Current ($T_J = 150^\circ\text{C}$) *	I_D	$T_A = 25^\circ\text{C}$	-4.9	A
		$T_A = 70^\circ\text{C}$	-3.9	
Pulsed Drain Current	I_{DM}	-30		
Continuous Source Current *	I_S	-1.7		
Maximum Power Dissipation *	P_D	$T_A = 25^\circ\text{C}$	2	W
		$T_A = 70^\circ\text{C}$	1.3	
Operating Junction and Storage Temperature Range	T_J, T_{stg}	-55 to 150	$^\circ\text{C}$	
Maximum Junction-to-Ambient*	R_{thJA}	62.5	$^\circ\text{C/W}$	

* Surface Mounted on 1" X 1" FR4 Board.

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■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit	
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = -250 μA	-1			V	
Gate-Body Leakage	I _{GSS}	V _{DS} = 0 V, V _{GS} = ±20 V			±100	nA	
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = -30V, V _{GS} = 0 V			-1	μA	
		V _{DS} = -30V, V _{GS} = 0 V, T _J = 55°C			-25	μA	
On-State Drain Current*	I _{D(on)}	V _{DS} ≤ -5 V, V _{GS} = -10 V	-20			A	
Drain-Source On-State Resistance*	r _{DS(on)}	V _{GS} = -10 V, I _D = -4.9A		0.043	0.053	Ω	
		V _{GS} = -4.5 V, I _D = -3.6A		0.070	0.095	Ω	
Forward Transconductance*	g _{fs}	V _{DS} = -15 V, I _D = -4.9A		10		S	
Schottky Diode Forward Voltage*	V _{SD}	I _S = -1.7 A, V _{GS} = 0 V		0.8	-1.2	V	
Total Gate Charge	Q _g	V _{DS} = -15V, V _{GS} = -10 V, I _D = -4.9A		16	25	nC	
Gate-Source Charge	Q _{gs}			5		nC	
Gate-Drain Charge	Q _{gd}			2		nC	
Gate Resistance	R _g		2		7.1	Ω	
Turn-On Delay Time	t _{d(on)}	I _D = -1 A, V _{GEN} = -10V, R _G = 6 Ω		9	15	ns	
Rise Time	t _r		V _{DD} = -15 V, R _L = 15 Ω		13	20	ns
Turn-Off Delay Time	t _{d(off)}				25	40	ns
Fall Time	t _f				15	25	ns
Source-Drain Reverse Recovery Time	t _{rr}	I _F = -1.7 A, di/dt = 100 A/μs		60	90	ns	

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