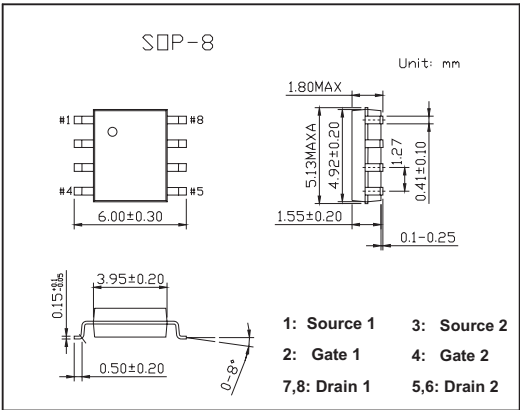
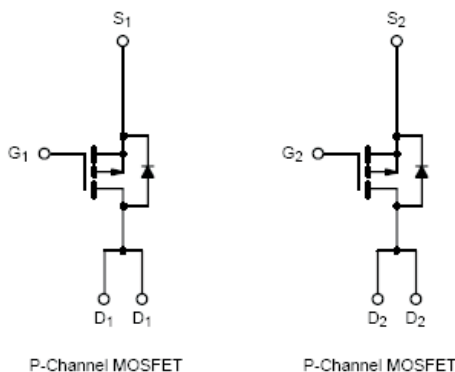


Dual P-Channel 30-V(D-S) MOSFET

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	-4.9	A
		-3.9	
Pulsed Drain Current	I_{DM}	-30	
Continuous Source Current *	I_S	-1.7	
Maximum Power Dissipation *	P_D	2	W
		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.

KI4953DY

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -250 \mu A$	-1			V
Gate-Body Leakage	I_{GSS}	$V_{DS} = 0 V, V_{GS} = \pm 20 V$			± 100	nA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -30V, V_{GS} = 0 V$			-1	μA
		$V_{DS} = -30V, V_{GS} = 0 V, T_J = 55^\circ C$			-25	μA
On-State Drain Current*	$I_{D(on)}$	$V_{DS} \leq -5 V, V_{GS} = -10 V$	-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	$t_{d(on)}$	$V_{DD} = -15 V, R_L = 15 \Omega$ $I_D = -1 A, V_{GEN} = -10V, R_G = 6 \Omega$		9	15	ns
Rise Time	t_r			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}	$I_F = -1.7 A, di/dt = 100 A/\mu s$		60	90	ns

* Pulse test; pulse width $\leq 300 \mu s$, duty cycle $\leq 2\%$.