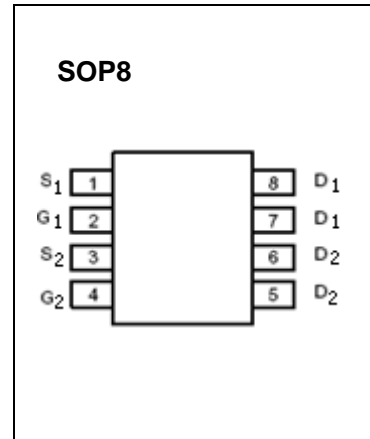
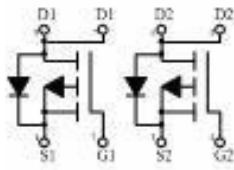


SOP8 Plastic-Encapsulate MOSFETS

CJQ4953 P-Channel 30-V(D-S) MOSFET

Equivalent circuit



Maximum ratings ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	-30	V
Gate-Source Voltage	V_{GS}	± 20	
Continuous Drain Current ($t \leq 10\text{s}$)	I_D	-5	A
Power Dissipation ($t \leq 10\text{s}$)	P_D	1.25	W
Thermal Resistance from Junction to Ambient ($t \leq 10\text{s}$)	$R_{\theta JA}$	100	$^{\circ}\text{C/W}$
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55~+150	

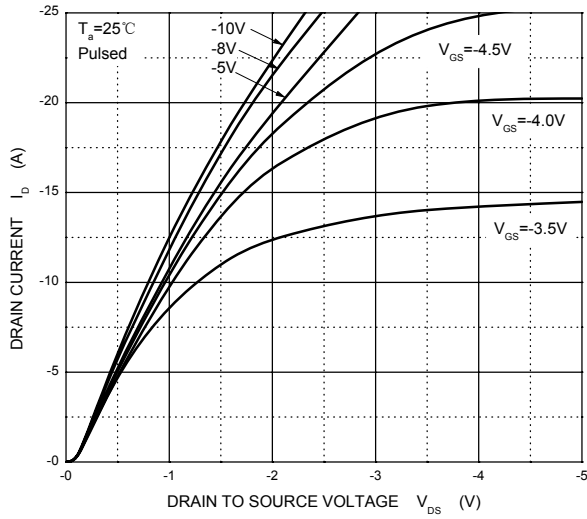
Electrical characteristics ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Units
Static						
Drain-source breakdown voltage	$V_{(BR)DSS}$	$V_{GS}=0V, I_D=-250\mu A$	-30			V
Gate-threshold voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=-250\mu A$	-1.0			V
Gate-body leakage	I_{GSS}	$V_{DS}=0V, V_{GS}=\pm 20V$			± 100	nA
Zero gate voltage drain current	I_{DSS}	$V_{DS}=-30V, V_{GS}=0V$			-1	μA
Drain-source on-resistance ^a	$R_{DS(on)}$	$V_{GS}=-10V, I_D=-4.9A$			60	m Ω
		$V_{GS}=-4.5V, I_D=-3.7A$			90	
Forward transconductance ^a	g_{fs}	$V_{DS}=-10V, I_D=-4.9A$	6.0			S
Diode forward voltage ^a	V_{SD}	$I_S=-1.7A, V_{GS}=0V$			-1.2	V
Dynamic^b						
Total gate charge	Q_g	$V_{DS}=-15V, V_{GS}=-10V, I_D=-4.9A$			25	nC
Gate-source charge	Q_{gs}			4		
Gate-drain charge	Q_{gd}			2		
Turn-on delay time	$t_{d(on)}$	$V_{DD}=-15V, R_L=15\Omega, I_D\approx-1A,$ $V_{GEN}=-10V, R_G=6\Omega$			15	nS
Rise time	t_r				20	
Turn-off delay time	$t_{d(off)}$				80	
Fall time	t_f				40	

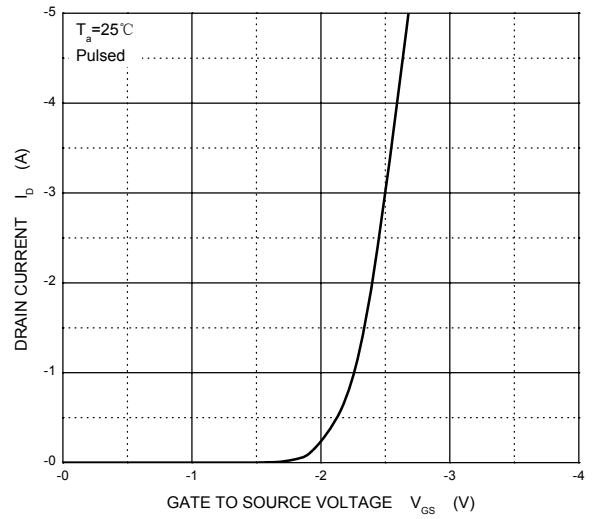
Notes :

- Pulse Test : Pulse width $\leq 300\mu s$, duty cycle $\leq 2\%$.
- Guaranteed by design, not subject to production testing.

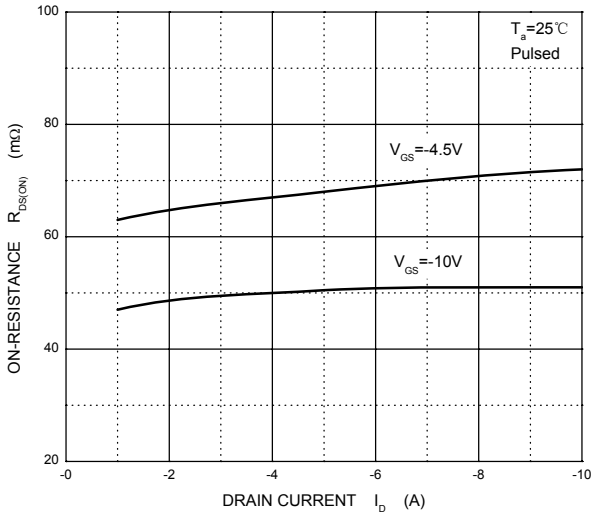
Output Characteristics



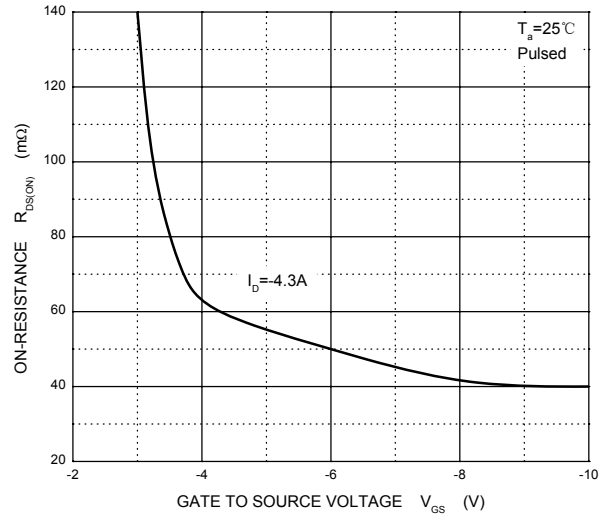
Transfer Characteristics



$R_{DS(ON)}$ — I_D



$R_{DS(ON)}$ — V_{GS}



I_S — V_{SD}

