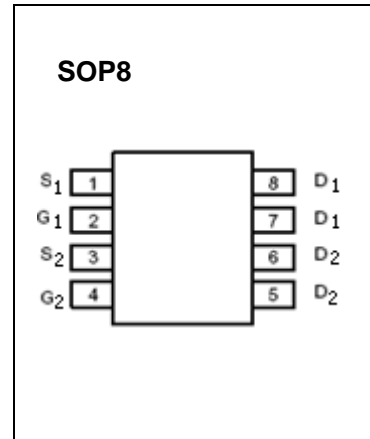
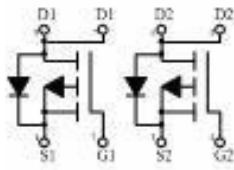


SOP8 Plastic-Encapsulate MOSFETS

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	$^{\circ}\text{C}/\text{W}$
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55~+150	

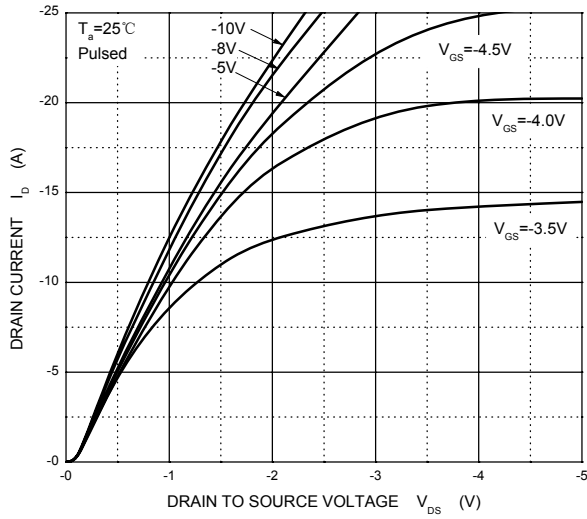
Electrical characteristics (T_a=25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Units
Static						
Drain-source breakdown voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D = -250μA	-30			V
Gate-threshold voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = -250μA	-1.0			V
Gate-body leakage	I _{GSS}	V _{DS} = 0V, V _{GS} = ±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	mΩ
		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 = 15Ω, I _D ≈ -1A, V _{GEN} = -10V, R _G = 6Ω			15	nS
Rise time	t _r				20	
Turn-off delay time	t _{d(off)}				80	
Fall time	t _f				40	

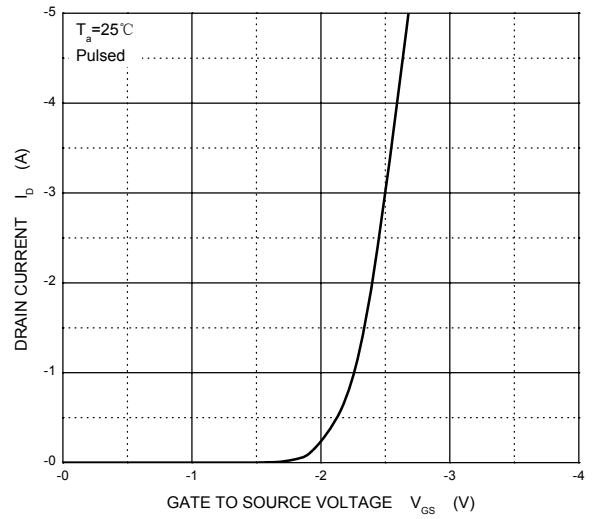
Notes :

- Pulse Test : Pulse width ≤ 300μs, duty cycle ≤ 2%.
- Guaranteed by design, not subject to production testing.

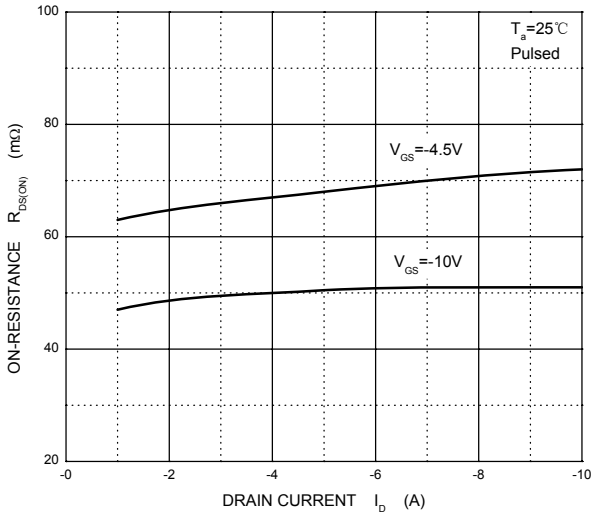
Output Characteristics



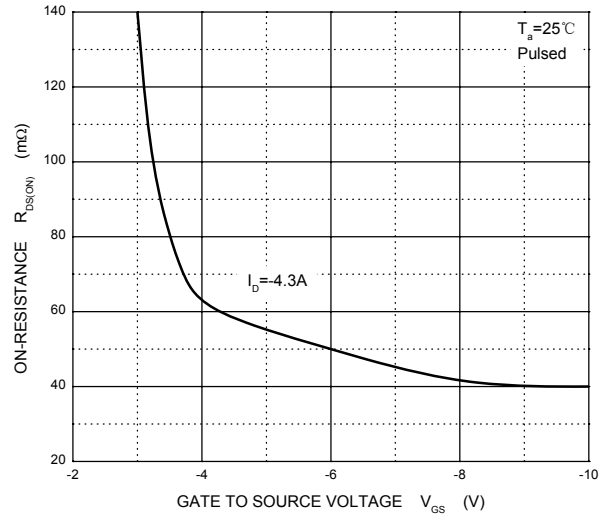
Transfer Characteristics



$R_{DS(ON)}$ — I_D



$R_{DS(ON)}$ — V_{GS}



I_S — V_{SD}

