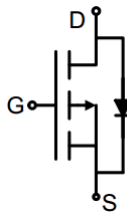
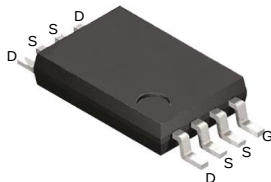


P-Channel Enhancement Mode Power MOSFET

Description The G08P02TS uses advanced trench technology to provide excellent $R_{DS(ON)}$, low gate charge. It can be used in a wide variety of applications.		 Schematic diagram	
General Features ● V_{DS} -20V ● I_D (at $V_{GS} = -10V$) -8.2A ● $R_{DS(ON)}$ (at $V_{GS} = -4.5V$) <8.5mΩ ● $R_{DS(ON)}$ (at $V_{GS} = -2.5V$) < 11mΩ ● $R_{DS(ON)}$ (at $V_{GS} = -1.8V$) < 14mΩ ● 100% Avalanche Tested ● RoHS Compliant		 TSSOP-8	
Application ● Power switch ● DC/DC converters			
Device	Package	Marking	Packaging
G08P02TS	TSSOP-8	G08P02	5000pcs/Reel

Absolute Maximum Ratings $T_C = 25^\circ\text{C}$, unless otherwise noted			
Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	-20	V
Continuous Drain Current	I_D	-8.2	A
Pulsed Drain Current (note1)	I_{DM}	-32	A
Gate-Source Voltage	V_{GS}	± 8	V
Power Dissipation	P_D	1.05	W
Operating Junction and Storage Temperature Range	T_J, T_{stg}	-55 To 150	$^\circ\text{C}$

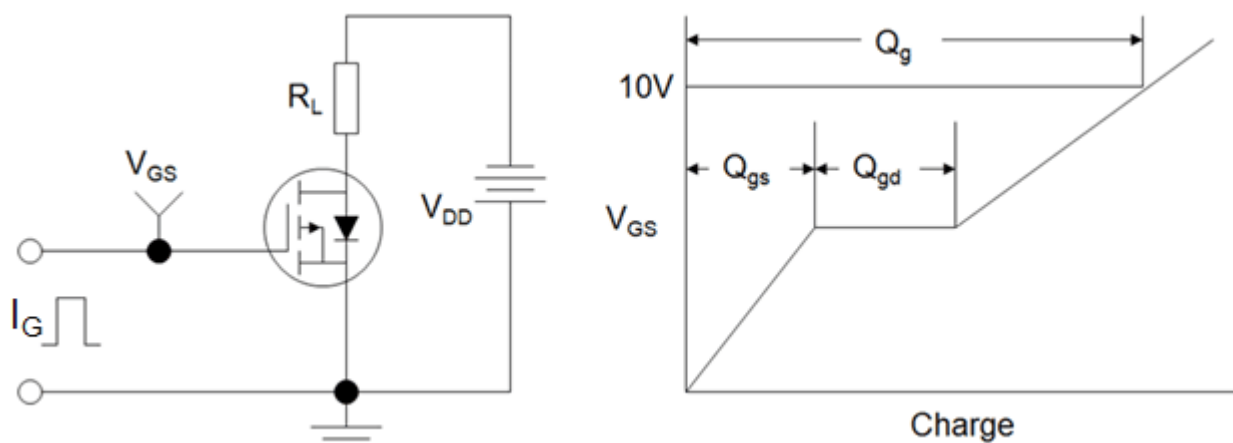
Thermal Resistance			
Parameter	Symbol	Value	Unit
Thermal Resistance, Junction-to-Ambient	R_{thJA}	119	$^\circ\text{C/W}$

Specifications T _J = 25°C, unless otherwise noted						
Parameter	Symbol	Test Conditions	Value			Unit
			Min.	Typ.	Max.	
Static Parameters						
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D = -250μA	-20	--	--	V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = -20V, V _{GS} = 0V	--	--	-1	μA
Gate-Source Leakage	I _{GSS}	V _{GS} = ±8V	--	--	±100	nA
Gate-Source Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = -250μA	-0.55	--	-0.9	V
Drain-Source On-Resistance	R _{DS(on)}	V _{GS} = -4.5V, I _D = -4.2A	--	7	8.5	mΩ
		V _{GS} = -2.5V, I _D = -3.2A	--	8	11	
		V _{GS} = -1.8V, I _D = -2.2A	--	10	14	
Forward Transconductance	g _{FS}	V _{DS} =-5V,I _D =-4.1A	6	--	--	S
Dynamic Parameters						
Input Capacitance	C _{iss}	V _{GS} = 0V, V _{DS} = -10V, f = 1.0MHz	--	1255	--	pF
Output Capacitance	C _{oss}		--	220	--	
Reverse Transfer Capacitance	C _{rss}		--	190	--	
Total Gate Charge	Q _g	V _{DD} = -10V, I _D = -8A, V _{GS} = -10V	--	29	--	nC
Gate-Source Charge	Q _{gs}		--	5.2	--	
Gate-Drain Charge	Q _{gd}		--	6.3	--	
Turn-on Delay Time	t _{d(on)}	V _{DD} = -4V, I _D = -3.3A, R _G = 1Ω	--	13	--	ns
Turn-on Rise Time	t _r		--	35	--	
Turn-off Delay Time	t _{d(off)}		--	32	--	
Turn-off Fall Time	t _f		--	10	--	
Drain-Source Body Diode Characteristics						
Continuous Body Diode Current	I _S	T _C = 25°C	--	--	-8.2	A
Body Diode Voltage	V _{SD}	T _J = 25°C, I _{SD} = -4A, V _{GS} = 0V	--	--	-1.2	V

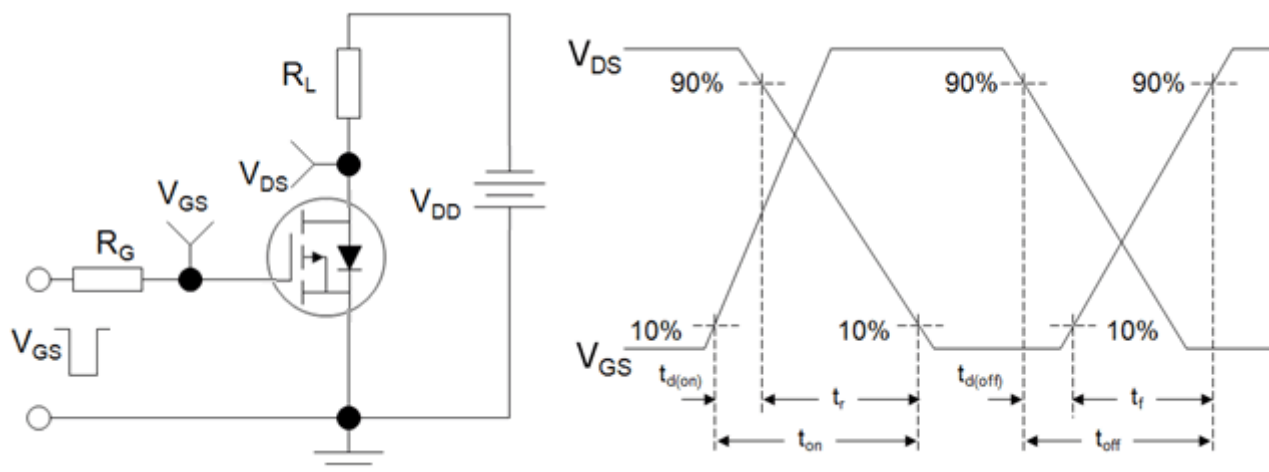
Notes

1. Repetitive Rating: Pulse width limited by maximum junction temperature
2. Identical low side and high side switch with identical R_G

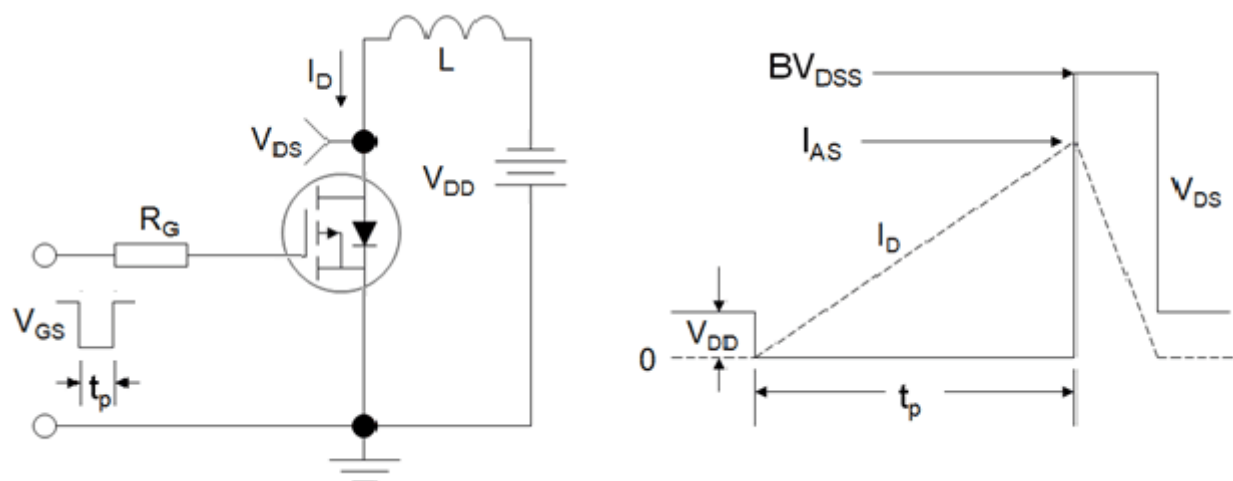
Gate Charge Test Circuit



Switch Time Test Circuit



EAS Test Circuit



Typical Characteristics $T_J = 25^\circ\text{C}$, unless otherwise noted

Figure 1. Output Characteristics

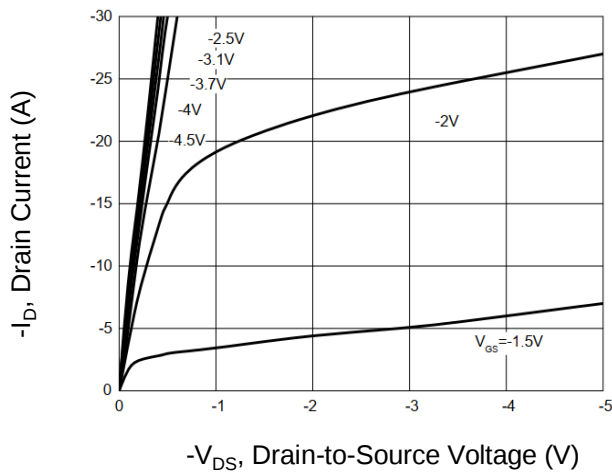


Figure 2. Transfer Characteristics

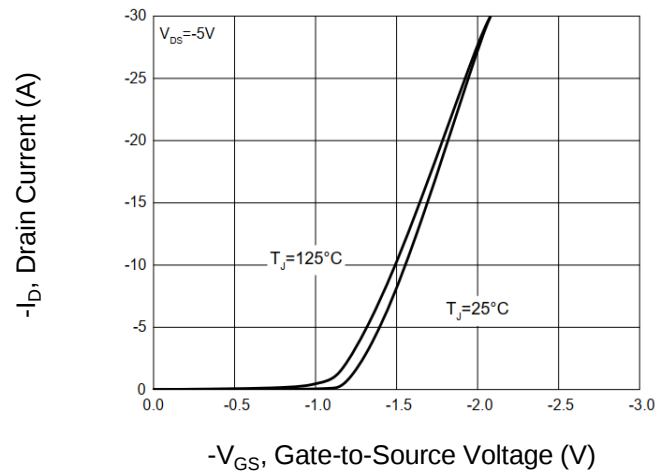


Figure 3. Drain Source On Resistance

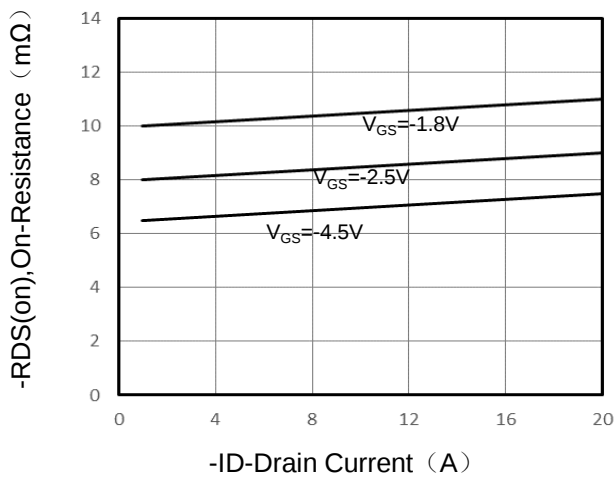


Figure 4. Gate Charge

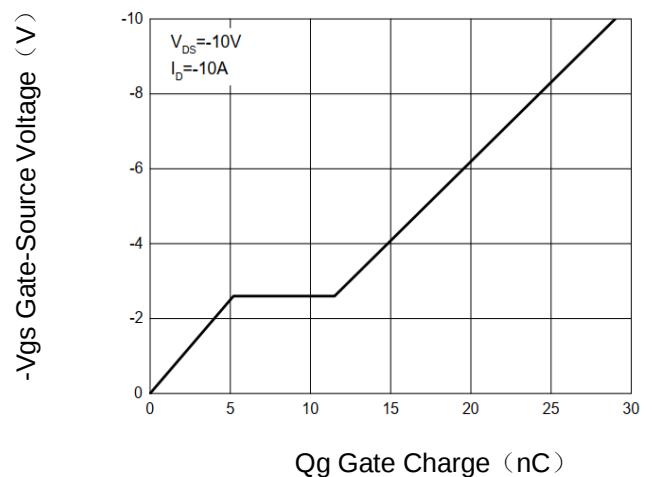


Figure 5. Drain-Source On-Resistance

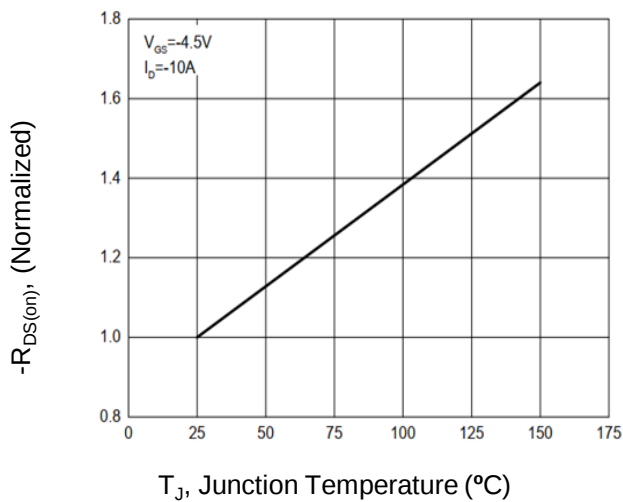
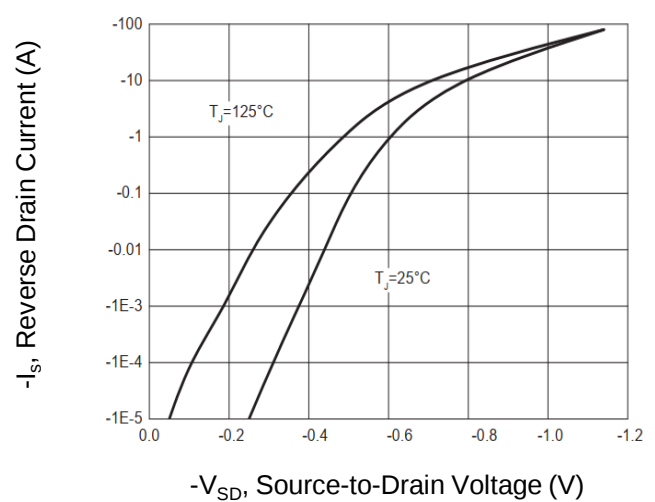
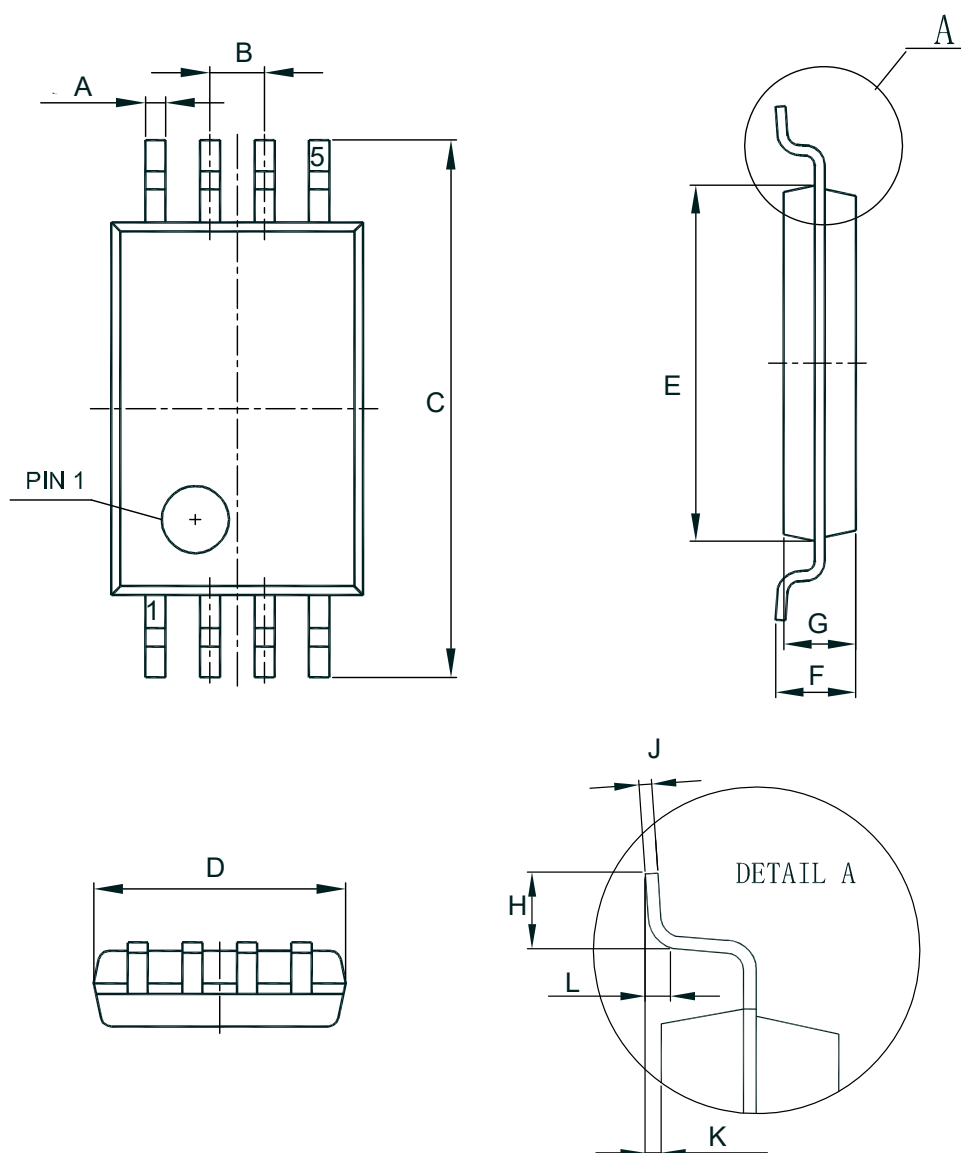


Figure 6. Source-Drain Diode Forward



TSSOP-8 Package Information



Dimensions					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.007	.011	0.170	0.270	
B	0.026BSC.		0.650BSC.		
C	0.244	0.260	6.200	6.600	
D	0.112	0.120	2.850	3.050	
E	0.169	0.177	4.300	4.500	
F	0.039	0.047	1.000	1.200	
G	0.035	0.043	0.900	1.100	
H	0.016	0.031	0.400	0.800	
J	0.003	0.008	0.077	0.200	
K	0.001	0.007	0.020	0.180	
L	0.010TYP.		0.250TYP.		