



ON Semiconductor®

ON Semiconductor DATA SHEET

SCH2408 — N-Channel Silicon MOSFET General-Purpose Switching Device Applications

Features

- 1.5V drive.
- Composite type with 2 MOSFETs contained in a single package, facilitating high-density mounting.

Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DS}		30	V
Gate-to-Source Voltage	V_{GS}		± 10	V
Drain Current (DC)	I_D		0.35	A
Drain Current (Pulse)	I_{DP}	$PW \leq 10\mu\text{s}$, duty cycle $\leq 1\%$	1.4	A
Allowable Power Dissipation	P_D	When mounted on ceramic substrate (900mm ² X0.8mm) 1unit	0.6	W
Channel Temperature	T_{ch}		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

Electrical Characteristics at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D=1\text{mA}$, $V_{GS}=0\text{V}$	30			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS}=30\text{V}$, $V_{GS}=0\text{V}$			1	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS}=\pm 8\text{V}$, $V_{DS}=0\text{V}$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=10\text{V}$, $I_D=100\mu\text{A}$	0.4		1.3	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=10\text{V}$, $I_D=200\text{mA}$	360	600		mS
Static Drain-to-Source On-State Resistance	$R_{DS(on)1}$	$I_D=200\text{mA}$, $V_{GS}=4\text{V}$		0.75	1.0	Ω
	$R_{DS(on)2}$	$I_D=100\text{mA}$, $V_{GS}=2.5\text{V}$		0.9	1.3	Ω
	$R_{DS(on)3}$	$I_D=10\text{mA}$, $V_{GS}=1.5\text{V}$		1.8	3.6	Ω
Input Capacitance	C_{iss}	$V_{DS}=10\text{V}$, $f=1\text{MHz}$		28		pF
Output Capacitance	C_{oss}	$V_{DS}=10\text{V}$, $f=1\text{MHz}$		6.0		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=10\text{V}$, $f=1\text{MHz}$		3.1		pF

Marking : LH

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SCH2408

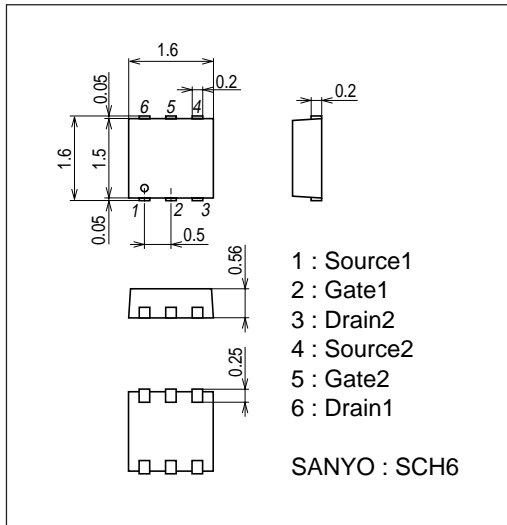
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		17.5		ns
Rise Time	t_r	See specified Test Circuit.		34.2		ns
Turn-OFF Delay Time	$t_{d(off)}$	See specified Test Circuit.		104		ns
Fall Time	t_f	See specified Test Circuit.		55.5		ns
Total Gate Charge	Q_g	$V_{DS}=10V, V_{GS}=4V, I_D=350mA$		0.87		nC
Gate-to-Source Charge	Q_{gs}	$V_{DS}=10V, V_{GS}=4V, I_D=350mA$		0.39		nC
Gate-to-Drain "Miller" Charge	Q_{gd}	$V_{DS}=10V, V_{GS}=4V, I_D=350mA$		0.14		nC
Diode Forward Voltage	V_{SD}	$I_S=350mA, V_{GS}=0V$		0.86	1.2	V

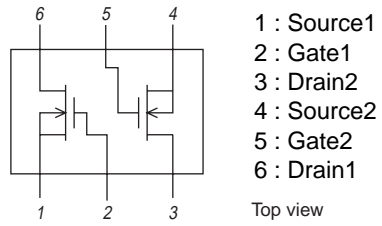
Package Dimensions

unit : mm (typ)

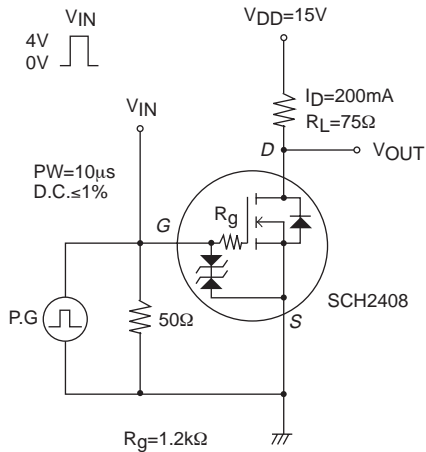
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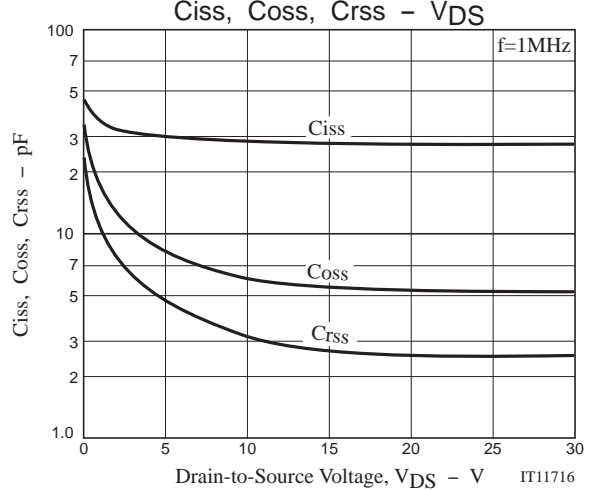
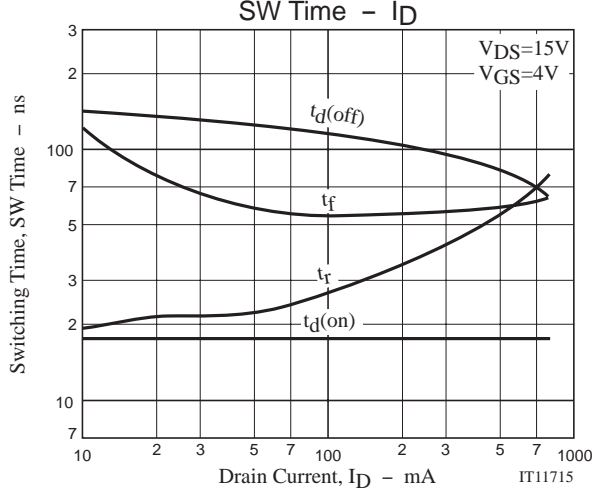
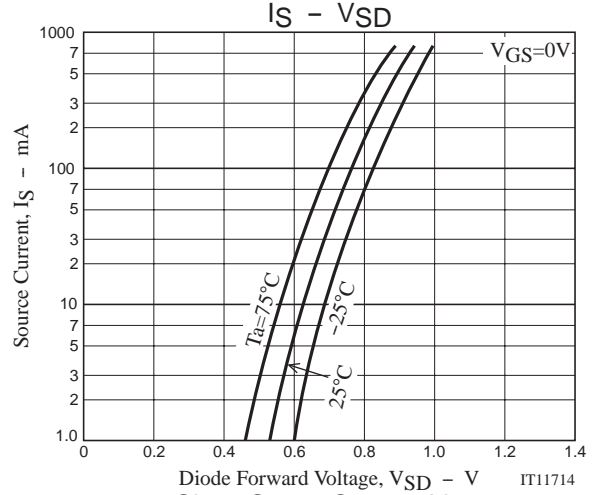
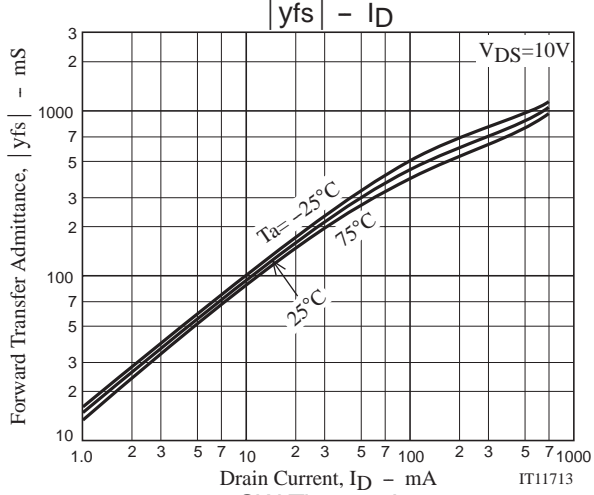
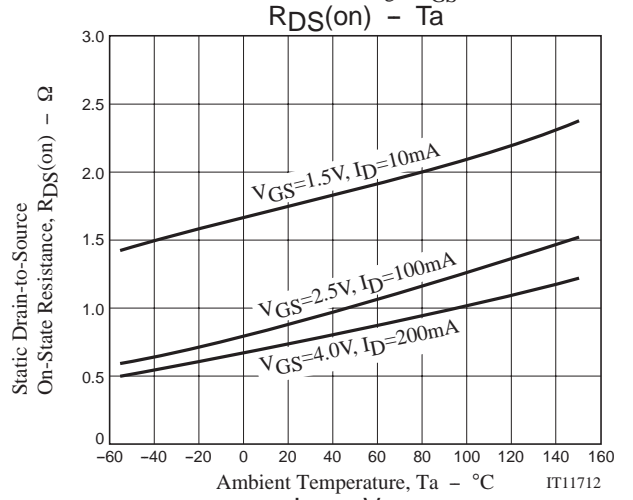
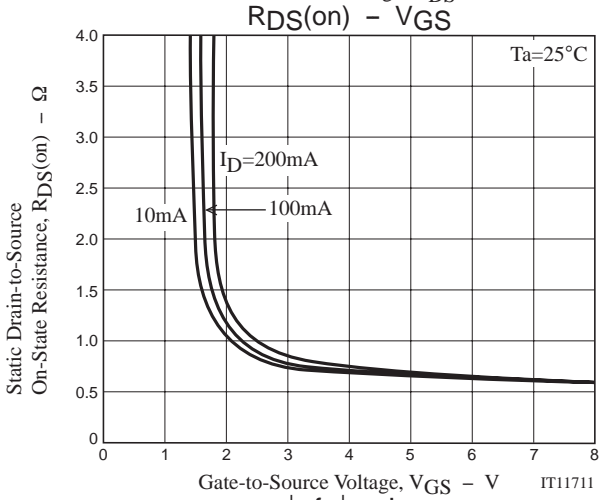
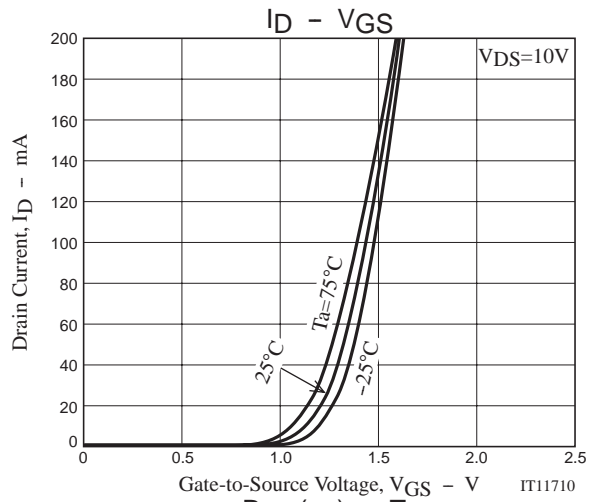
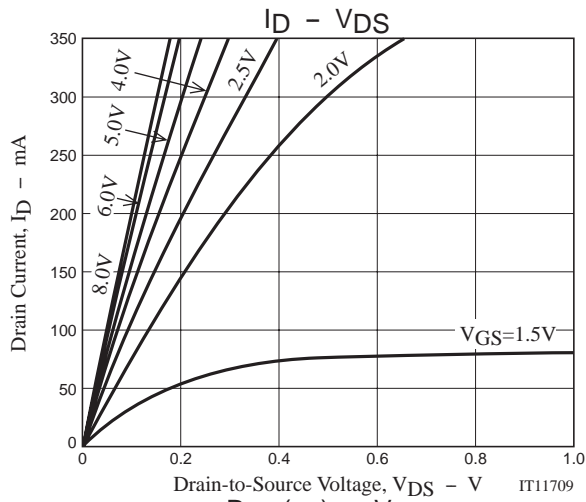
Electrical Connection



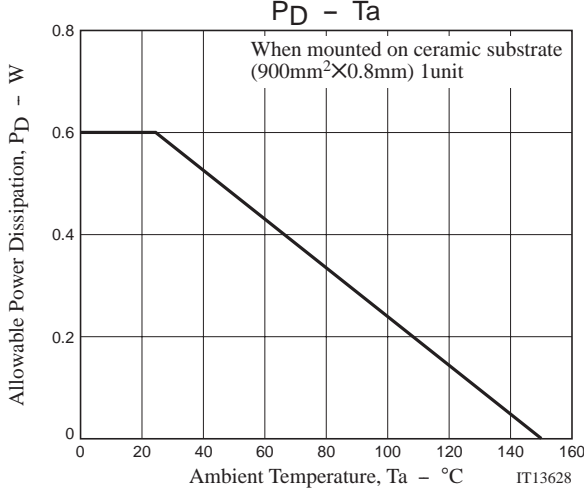
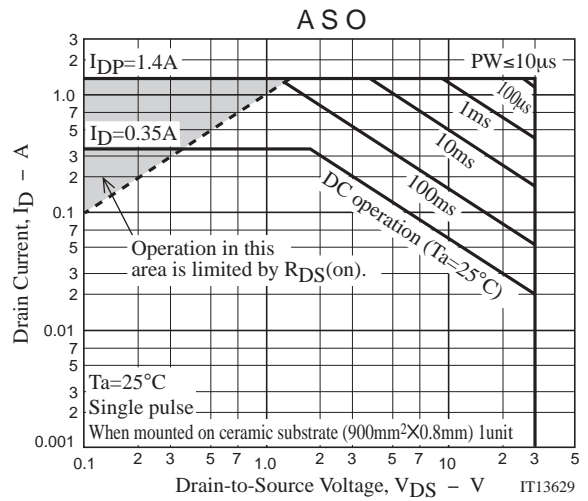
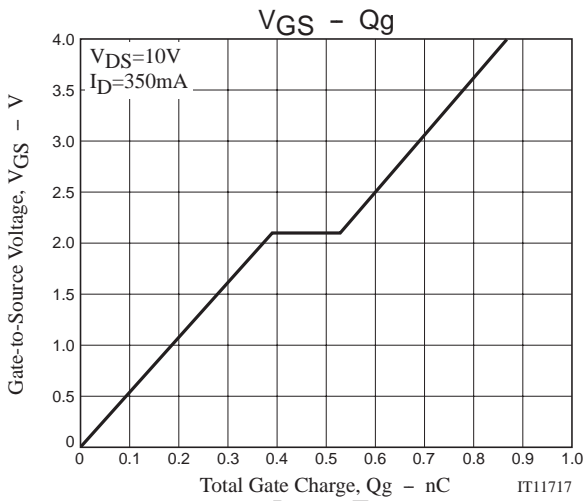
Switching Time Test Circuit



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