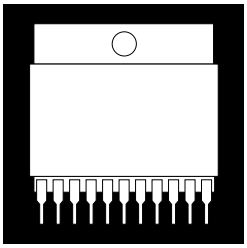
Preliminary Data Sheet

OM6423SP6 OM6425SP6
OM6424SP6 OM6426SP6

POWER MOSFETS IN 11-PIN INDUSTRIAL SIP PACKAGE



Industrial 11-Pin, 150 to 500 V, N-Channel Power MOSFET, Full "H" Bridge

FEATURES

- Low $R_{DS(on)}$
- Fast Switching
- Single SIP Package
- 3 Voltage, Current Ratings

DESCRIPTION

This series of "H" Bridge configured circuits provides the user with a low cost solution to power control. Ideally suited for stepper motors, limited span designs, lighting systems, and D.C. motor applications.

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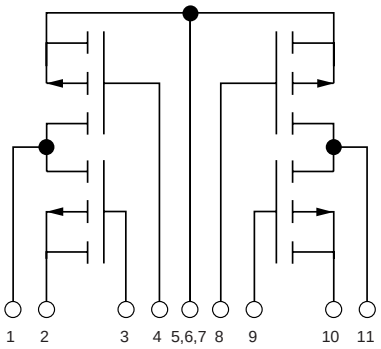
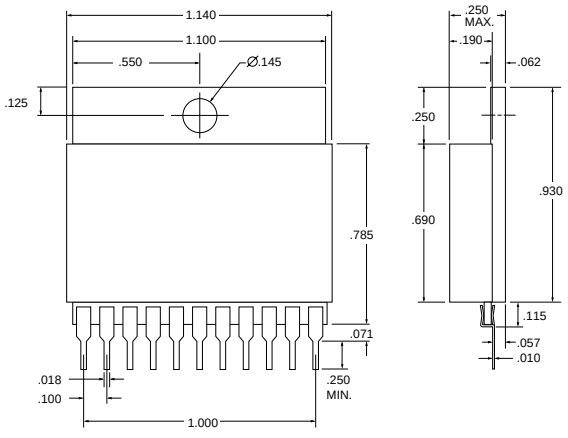
SCHEMATIC



MECHANICAL OUTLINE



FOR FURTHER INFORMATION, CONTACT FACTORY DIRECT OR YOUR LOCAL SALES REPRESENTATIVE.
This document contains information on a new product. Specifications and information herein are subject to change without notice.

ELECTRICAL CHARACTERISTICS: T = 25° unless otherwise noted.

Characteristic	Symbol	6423SP6 Min.	6423SP6 Max.	6424SP6 Min.	6424SP6 Max.	Units
Drain-Source Breakdown Voltage (V_{GS} = 0, I_D = 0.25mA)	$V_{(BR)DSS}$	50	150	100	-	V_{dc}
Zero Gate Voltage Drain Current	I_{DSS}					
(V_{DS} = Rated V_{DSS}, V_{GS} = 0)		-	250	-	250	µA
(V_{DS} = Rated V_{DSS}, V_{GS} = 0, T_J = 85°C)		-	1000	-	1000	
Gate-Body Leakage Current, Forward	I_{GSSF}					nA
(V_{GSF} = ±20 Vdc, V_{DS} = 0)		500	500	500	500	
Gate Threshold Voltage	$V_{GS(th)}$					V
(V_{DS} = V_{GS}, I_D = 250µA)		2.0	4.0	2.0	4.0	
Static Drain-Source-On-Resistance						
(V_{GS} = 10V_{dc})	$r_{DS(on)}$	.02	.08	-	.16	
Drain-Source-On-Voltage	@ I_D =	-	5.0	-	4.0	A
(V_{GS} = 10V, T_J = 85°C)	$V_{DS(on)}$	-	.4	-	.64	V
Forward Transconductance (V_{DS} = 10V, I_D = 12A)	g_{FS}	-	8.0	-	5.0	mhos
Input Capacitance (V_{DS} = 25V,	C_{iss}	-	700	-	850	pF
Output Capacitance V_{GS} = 0,	C_{oss}	-	450	-	260	pF
Reverse Transfer Capacitance f = 1MHz)	C_{rss}	-	180	-	50	pF
Turn-On Delay Time (V_{DD} = 25V, I_D = 2A)	$t_{d(on)}$	-	20	-	30	ns
Turn-Off Delay Time (V_{DD} = 25V, I_D = 2A)	$t_{d(off)}$	-	110	-	40	ns
Source Drain Diode Forward On Voltage I_f = 10	V_{SD}	-	1.6	-	1.6	V

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ELECTRICAL CHARACTERISTICS: T = 25° unless otherwise noted.

Characteristic	Symbol	6425SP6 Min.	6425SP6 Max.	6426SP6 Min.	6426SP6 Max.	Units
Drain-Source Breakdown Voltage (V_{GS} = 0, I_D = 0.25mA)	$V_{(BR)DSS}$	200	-	500	-	V_{dc}
Zero Gate Voltage Drain Current	I_{DSS}					
(V_{DS} = Rated V_{DSS}, V_{GS} = 0)		-	250	-	250	µA
(V_{DS} = Rated V_{DSS}, V_{GS} = 0, T_J = 85°C)		-	1000	-	1000	
Gate-Body Leakage Current, Forward	I_{GSSF}					nA
(V_{GSF} = ±20 Vdc, V_{DS} = 0)		500	500	500	500	
Gate Threshold Voltage	$V_{GS(th)}$					V
(V_{DS} = V_{GS}, I_D = 250µA)		2.0	4.0	2.0	4.0	
Static Drain-Source-On-Resistance						
(V_{GS} = 10V_{dc})	$r_{DS(on)}$	-	.8	-	3.0	
Drain-Source-On-Voltage	@ I_D =	-	2.0	-	1.0	A
(V_{GS} = 10V, T_J = 85°C)	$V_{DS(on)}$	-	1.6	-	3.0	V
Forward Transconductance (V_{DS} = 10V, I_D = 12A)	g_{FS}	-	1.3	-	1.0	mhos
Input Capacitance (V_{DS} = 25V,	C_{iss}	-	600	-	400	pF
Output Capacitance V_{GS} = 0,	C_{oss}	-	300	-	150	pF
Reverse Transfer Capacitance f = 1MHz)	C_{rss}	-	80	-	40	pF
Turn-On Delay Time (V_{DD} = 25V, I_D = 2A)	$t_{d(on)}$	-	40	-	60	ns
Turn-Off Delay Time (V_{DD} = 25V, I_D = 2A)	$t_{d(off)}$	-	100	-	30	ns
Source Drain Diode Forward On Voltage I_f = 4	V_{SD}	-	1.6	-	1.6	V