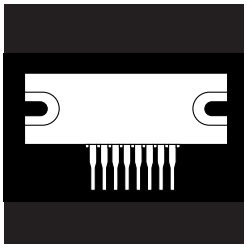
Preliminary Data Sheet

OM9307SP5 OM9309SP5
OM9308SP5

POWER MOSFET DUAL, HIGH-CURRENT DRIVER MCM IN A PLASTIC AND METAL PACKAGE



Versatile, Dual Output Multi-Chip-Modules (MCM's) Provide High-Current/High-Voltage Driver Capability In Power SIP

FEATURES

- Output Voltage Ratings: 60V, 100V, Or 200V
- High Efficiency MOSFET Circuitry (Except Regulator)
- High-Speed Switching Advantages Of Power MOSFETs
- Suitable For (Stand Alone) Single Supply Operation
- Low Thermal Impedance Packaging
- Electrically Isolated Heat-sinking
- Low Profile Mounting

DESCRIPTION

Adaptable, dual power driver incorporates high-current NMOS FET outputs. Each input drives an isolated N-channel FET rated for >10 amp loads. An internal regulator allows single supply operation for many applications. The regulator supports an external load limit of <50A, 12V, ±5%. These device provide power interface compatibility with standard logic and analog IC's. Both Industrial and Military specified types are available.

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APPLICATIONS

- Relay and Solenoid Interface
- Lamp and Heater Control
- Motion Control and Power Conversion
- Low Profile Mounting

ELECTRICAL AND FUNCTIONAL CHARACTERISTICS

12V Single Supply Operating Voltage Range (Internal Regulator Compatibility)

Three Versions: (1) . . . . . 14V to 60V
(2) . . . . . 14V to 100V
(3) . . . . . 14V to 200V

MILITARY VERSION	INDUSTRIAL VERSION	RATED VOLTAGE	RATED OUTPUT CURRENT
OM9307SS	OM9307SP5	60V	20A
OM9308SS	OM9308SP5	100V	16A
OM9309SS	OM9309SP5	200V	10A

INPUT SIGNAL LEVELS

Logic 1 Input Voltage	3.0 V Minimum
Logic 0 Input Voltage	0.8 V Minimum
Input Current (0 V_{in} V_S)	-10 µA to 10 µA

TRUTH TABLE: Mixed Inverting/Non-Inverting

INPUT	OUTPUT 1	OUTPUT 2
LOW (0)	ON(Low)	OFF(High)
HIGH (1)	OFF(High)	ON(Low)

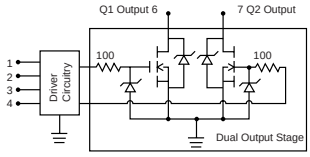
POWER OUTPUTS

CHARACTERISTIC	SYMBOL	PARAMETERS	UNITS
Output Leakage	I_{dss}	$V_{bb} = V_{max}$	250µA @ +25°C 1mA @ +125°C
Drain Source Breakdown	$V_{(BR)dss}$	I_{dss} = 250µA	60 V (min) 100 V (min) 200 V (min)
Output ON Resistance	R_{OUT}	I_{OUT} = 1A	0.06 (60 V) 0.08 (100 V) 0.21 (200 V)
Output ON Voltage	V_{ON}	I_{OUT} = 14A I_{OUT} = 10A I_{OUT} = 6A	0.85 V (max - 60 V) 0.80 V (max - 100 V) 1.30 V (max - 200 V)

POWER SUPPLY

V_{in} = 3V, Reg_{out} = Open, V_{bb} max	15 mA (max)
V_{in} = 0V, Reg_{out} = Open, V_{bb} max	TBD (max)
I_{reg} = 40mA, V_{in} = 3 V, V_{bb} max	V_{nom} ± 5% (12 V ± 5%)

Omnirel Internal Design Note: Maximum current @ +85°C and 30W.



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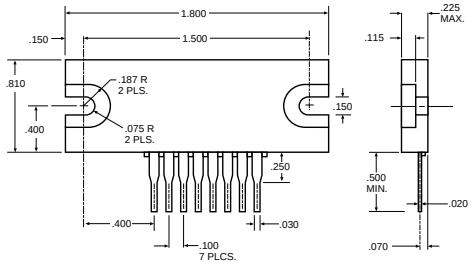
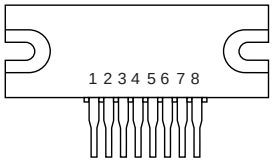
INDUSTRIAL APPLICATIONS

P-5 MECHANICAL OUTLINE



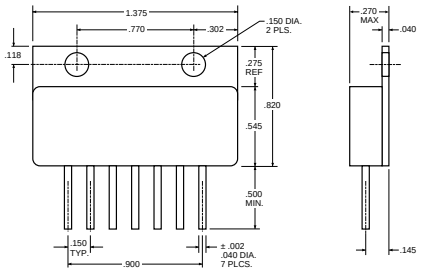
P-5 PIN CONNECTION



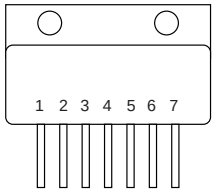
Pin 1: V_{CC}
Pin 2: V_{REF}
Pin 3: B_{IN}
Pin 4: A_{IN}
Pin 5: N/C
Pin 6: A_{OUT}
Pin 7: Ground
Pin 8: B_{OUT}

MILITARY APPLICATIONS

S-7 MECHANICAL OUTLINE



S-7 PIN CONNECTION



Pin 1: V_{CC}
Pin 2: V_{REF}
Pin 3: B_{IN}
Pin 4: A_{IN}
Pin 5: A_{OUT}
Pin 6: Ground
Pin 7: B_{OUT}