SA8550

30V Stepper Motor Driver

Description

The SA8550 is a dual-channel low saturation voltage forward/reverse motor driver IC. It is optimal for motor drive in 12V or 24V system products and can drive a stepper motor in Full-step or two DC motor.

The output driver block of each H-bridge consists of N-channel power MOSFETs configured as an H- bridge to drive the motor windings. Each H-bridge includes circuitry to regulate or limit the winding current. Internal shutdown functions are provided for under-voltage lockout, over current protection and over temperature. A low-power sleep mode is also provided.

The SA8550 is available in a compact ESOP8 and SOP10 package.

FEATURES

- VM max=32V, IO max = 1.2A
- R_{DSON}: 730-mΩ (HS + LS)
- H-Bridge Motor Driver
- Over current protection
- Over temperature protection
- UVLO protection
- Low-Power Sleep Mode
- ESOP8 and SOP10 Package

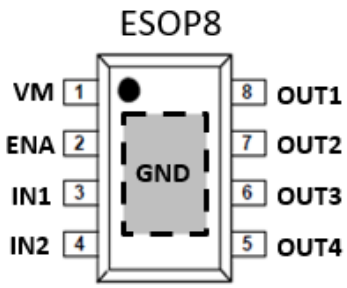
Applications

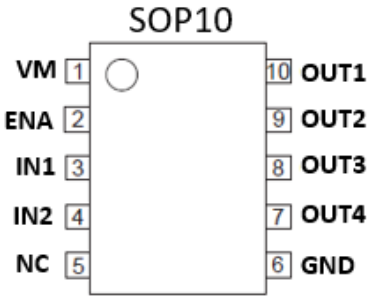
- Stage Lighting
- Refrigerator
- Vacuum Cleaner
- POS Printer
- Any Relevant Stepper Motor Applications.

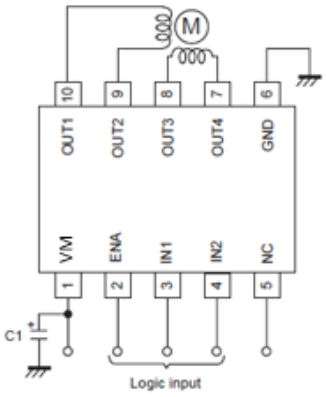
Device Information

Part No.	Package	Quantity
SA8550	ESOP8	4000/Reel
SA8550	SOP10	4000/Reel

SA8550 Package & Simplified Schematic







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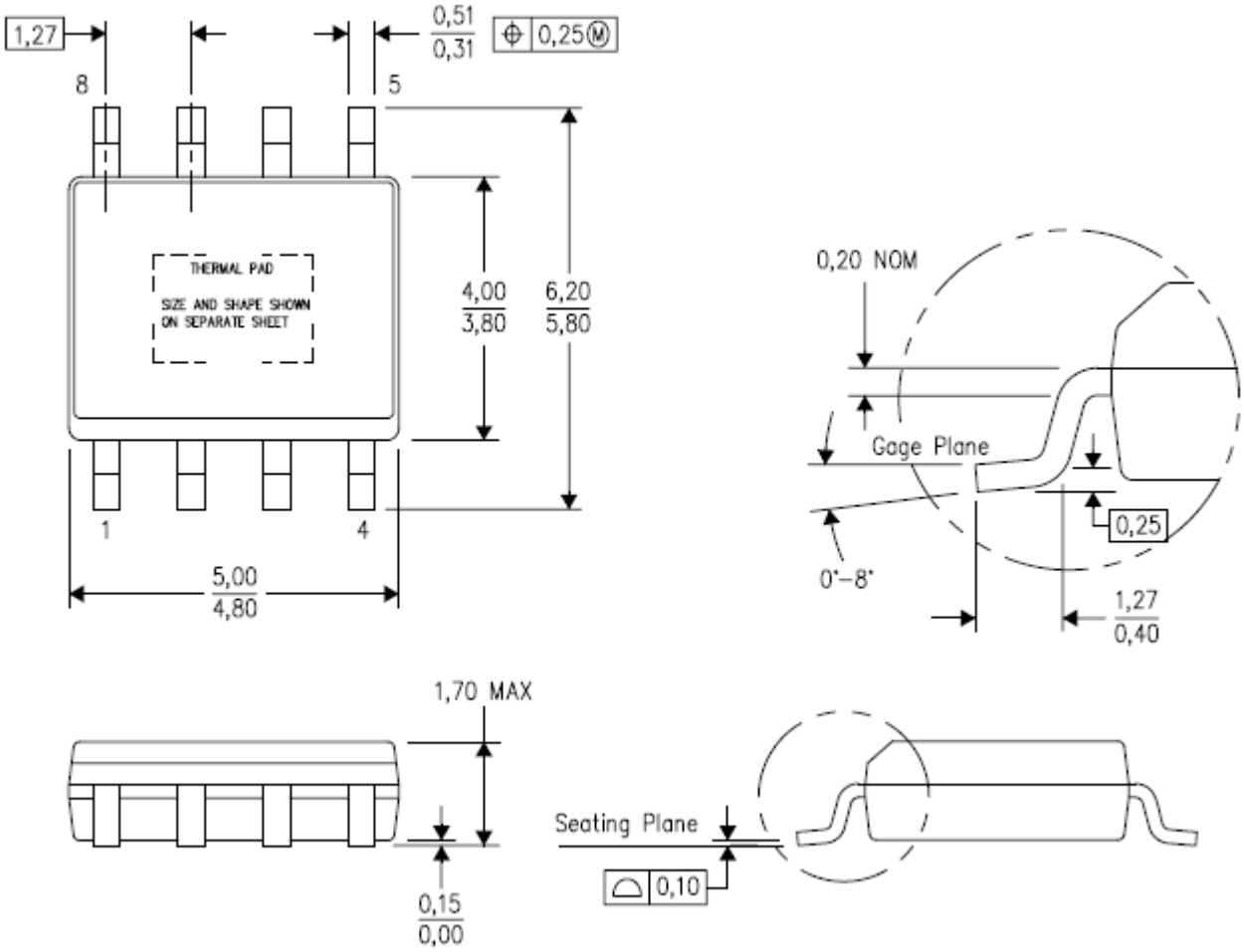
Package Information

ESOP8



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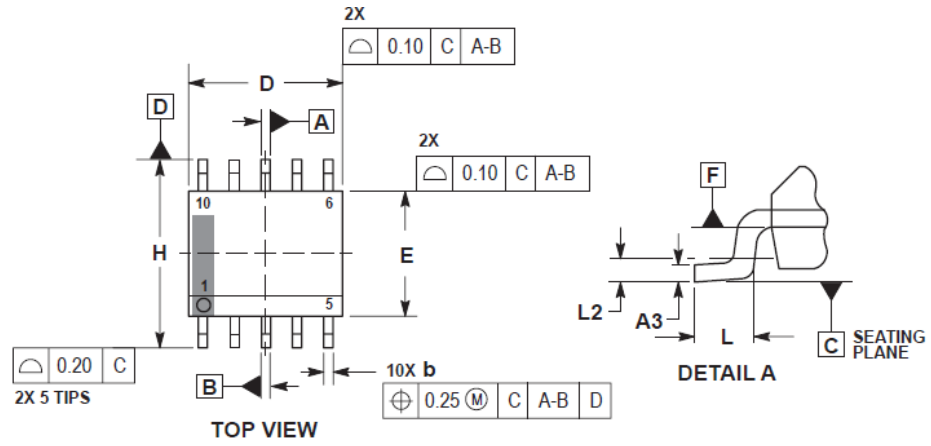
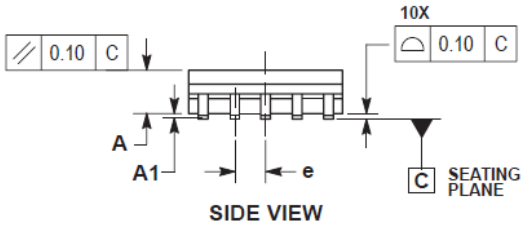
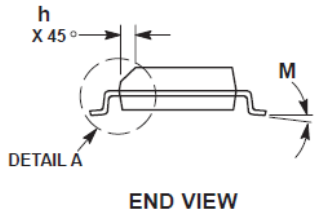
SOP10



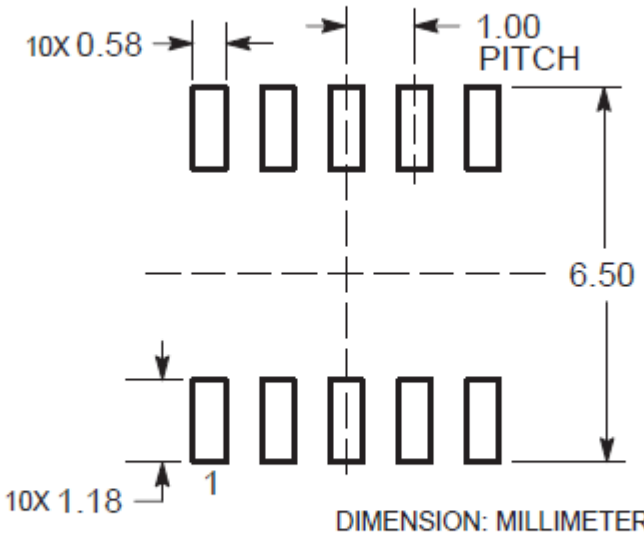




NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. DIMENSION b DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE PROTRUSION SHALL BE 0.10mm TOTAL IN EXCESS OF 'b' AT MAXIMUM MATERIAL CONDITION.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS. MOLD FLASH, PROTRUSIONS, OR GATE BURRS SHALL NOT EXCEED 0.15mm PER SIDE. DIMENSIONS D AND E ARE DETERMINED AT DATUM F.
5. DIMENSIONS A AND B ARE TO BE DETERMINED AT DATUM F.
6. A1 IS DEFINED AS THE VERTICAL DISTANCE FROM THE SEATING PLANE TO THE LOWEST POINT ON THE PACKAGE BODY.

	MILLIMETERS	
DIM	MIN	MAX
A	1.25	1.75
A1	0.10	0.25
A3	0.17	0.25
b	0.31	0.51
D	4.80	5.00
E	3.80	4.00
e	1.00 BSC	
H	5.80	6.20
h	0.37 REF	
L	0.40	1.27
L2	0.25 BSC	
M	0°	8°

RECOMMENDED SOLDERING FOOTPRINT*



*For additional information on our Pb−Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

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