

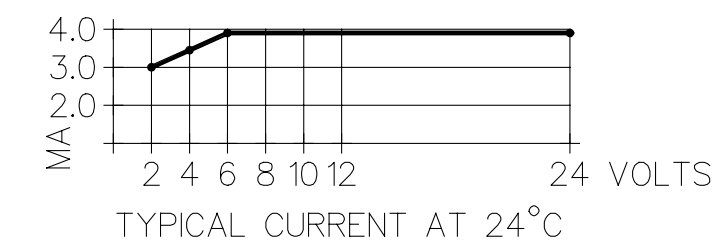
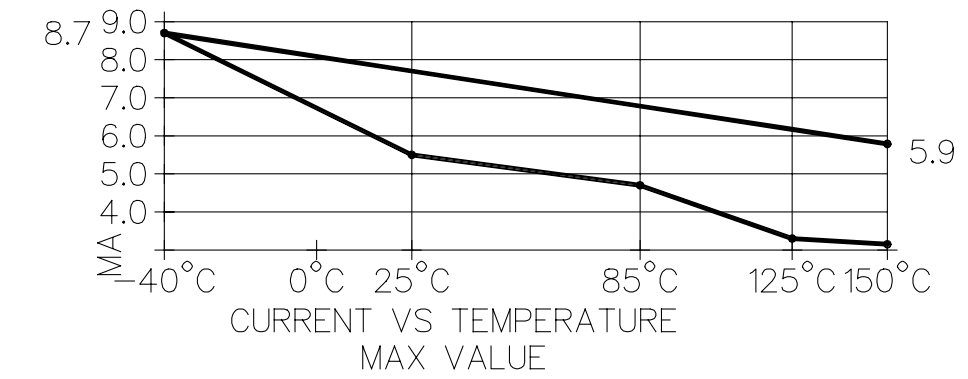
|         |     | DATA POINTS |      |      |      |      |
|---------|-----|-------------|------|------|------|------|
|         |     | -55°        | 25°  | 85°  | 125° | 150° |
| OPERATE | MAX | 140         | 150  | 250  | 325  | 375  |
|         | NOM | 90          | 100  | 150  | 210  | 225  |
|         | MIN | 25          | 45   | 45   | 40   | 40   |
| RELEASE | MAX | -25         | -45  | -45  | -40  | -40  |
|         | NOM | -90         | -100 | -150 | -210 | -225 |
|         | MIN | -140        | -150 | -250 | -325 | -375 |

| MAGNETIC CHARACTERISTICS /2/ |              |                 |                 |
|------------------------------|--------------|-----------------|-----------------|
| TEMPERATURE RANGE            | 0°C TO +85°C | -40°C TO +125°C | -55°C TO +150°C |
| OPERATING GAUSS MAXIMUM      | 250          | 325             | 375             |
| OPERATING GAUSS MINIMUM      | 40           | 25              | 25              |
| RELEASE GAUSS MINIMUM        | -250         | -325            | -375            |
| RELEASE GAUSS MAXIMUM        | -40          | -25             | -25             |

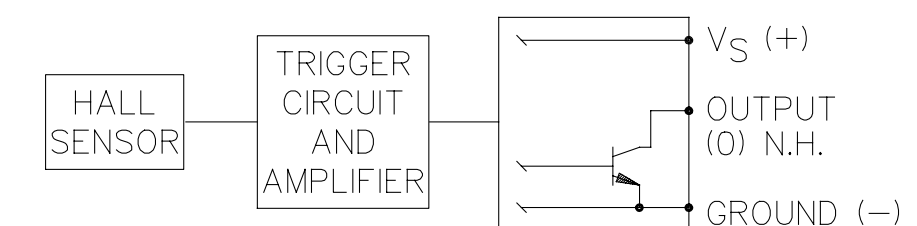
| ELECTRICAL CHARACTERISTICS -40 TO 125°C 4.5 TO 24 VDC -55°C TO 150°C |             |              |          |
|--|-------------|--------------|----------|
|  | MAX AT 25°C | MAXIMUM      | MAXIMUM  |
| SUPPLY CURRENT   |             | 8.7 mA       | 9.0 mA   |
| OUTPUT VOLTAGE (ON) (SINKING 10 mA)                                  |             | .4 VOLTS /8/ | .4 VOLTS |
| VOLTAGE APPLIED TO OUTPUT (OFF)                                      |             | 24 VOLTS     | 24 VOLTS |
| OUTPUT CURRENT   |             | 10 mA        | 10 mA    |
| OUTPUT LEAKAGE CURRENT (OFF)   |             | 10 μA        | 10 μA    |
| OUTPUT SWITCHING TIME  |             |              |          |
| RISE TIME (10% TO 90%)   |             | 1.5 μS       | 1.5 μS   |
| FALL TIME (90% TO 10%)   |             | 1.5 μS       | 1.5 μS   |

| ABSOLUTE MAXIMUM RATINGS /3/         |   |
|--------------------------------------|---|
| TEMPERATURE                          | -55°C TO +170°C   |
| SUPPLY VOLTAGE                       | -28 VDC TO 28 VDC   |
| VOLTAGE EXTERNALLY APPLIED TO OUTPUT | 28 VDC WITH SWITCH IN OFF COND. ONLY<br>-0.5 VDC WITH SWITCH IN ON OR OFF COND. |
| OUTPUT CURRENT                       | 20 mA   |
| MAGNETIC FLUX                        | NO LIMIT  |

- NOTES
- THE MAGNETIC FLUX USED TO OPERATE THE SWITCH MUST BE IN THE DIRECTION AND LOCATION SHOWN (THIS ASSUMES THE CONVENTION THAT THE DIRECTION OF THE EXTERNAL FLUX OF A MAGNET IS FROM THE NORTH TO THE SOUTH POLE OF THE MAGNET)
  - THE MAGNETIC FIELD STRENGTH (GAUSS) REQUIRED TO CAUSE THE SWITCH TO CHANGE STATE (OPERATE AND RELEASE) WILL BE AS SPECIFIED IN THE MAGNETIC CHARACTERISTICS. TO TEST THE SWITCH AGAINST THE SPECIFIED MAGNETIC CHARACTERISTICS, THE SWITCH MUST BE PLACED IN A UNIFORM MAGNETIC FIELD
  - ABSOLUTE MAXIMUM RATINGS ARE THE EXTREME LIMITS THAT THE DEVICE WILL WITHSTAND WITHOUT DAMAGE TO THE DEVICE. HOWEVER, THE ELECTRICAL AND MAGNETIC CHARACTERISTICS ARE NOT GUARANTEED AS THE MAXIMUM LIMITS (ABOVE RECOMMENDED OPERATING CONDITIONS) ARE APPROACHED, NOR WILL THE DEVICE NECESSARILY OPERATE AT ABSOLUTE MAXIMUM RATING
  - DIMENSIONS NOTED ARE DUE TO TIE BAR REMOVAL OPERATION AND ARE VALID ONLY IN TIE BAR AREA LOCATED WITHIN .080 DIMENSION
  - HALL EFFECT LOCATION WITH INTEGRATED CIRCUIT PLACEMENT TOLERANCE
  - LEADS MUST BE ADEQUATELY SUPPORTED DURING ANY FORMING/SHEARING OPERATION TO ENSURE THAT THE LEADS ARE NOT STRESSED INSIDE THE PLASTIC
  - PCB WAVE SOLDERING GUIDELINES ARE AS FOLLOWS:  
250°C TO 260° SOLDERING TEMPERATURE 3 SECONDS MAXIMUM SOLDERING TIME
  - BURRS ARE ALLOWED ONLY IF FULL LENGTH OF LEADS WILL PASS THROUGH Ø.023 HOLE. LEAD REFERENCE DIMENSIONS DO NOT INCLUDE SOLDER THICKNESS
  - DIMENSION REFERS TO THE LOCATION OF LEAD CENTERLINES AS THEY EXIT THE PLASTIC PACKAGE
  - MOLDED PART DIMENSIONS DO NOT INCLUDE FLASH. FLASH IS LIMITED TO .005 MAX



BLOCK DIAGRAM CURRENT SINKING OUTPUT



| THIRD ANGLE PROJECTION                    |              |
|---|--------------|
| SCALE                                     | 5 : 1        |
| DO NOT SCALE PRINT                        |              |
| UNLESS OTHERWISE SPECIFIED TOLERANCES ARE |              |
| ONE PLACE                                 | (.0) ±.030   |
| TWO PLACES                                | (.00) ±.015  |
| THREE PLACES                              | (.000) ±.005 |
| ANGLES                                    | ±            |
| WEIGHT                                    |              |

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**MICRO SWITCH**  
a Honeywell Division

CATALOG LISTING  
**SS46**

SOLID STATE SWITCH

FED. MFG. CODE 91929

DRAWING NUMBER SS46  
 ISSUE 11  
 PAGE 1 OF 1  
 RELEASE NO. DR-3687  
 REPLACES X84855-SS  
 REVISIONS  
 A OBS DWG 60751474  
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 26 MAY 95  
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