

M

2AV54

NOTES

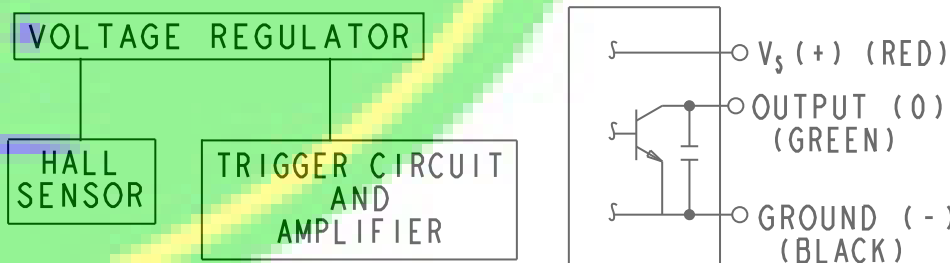
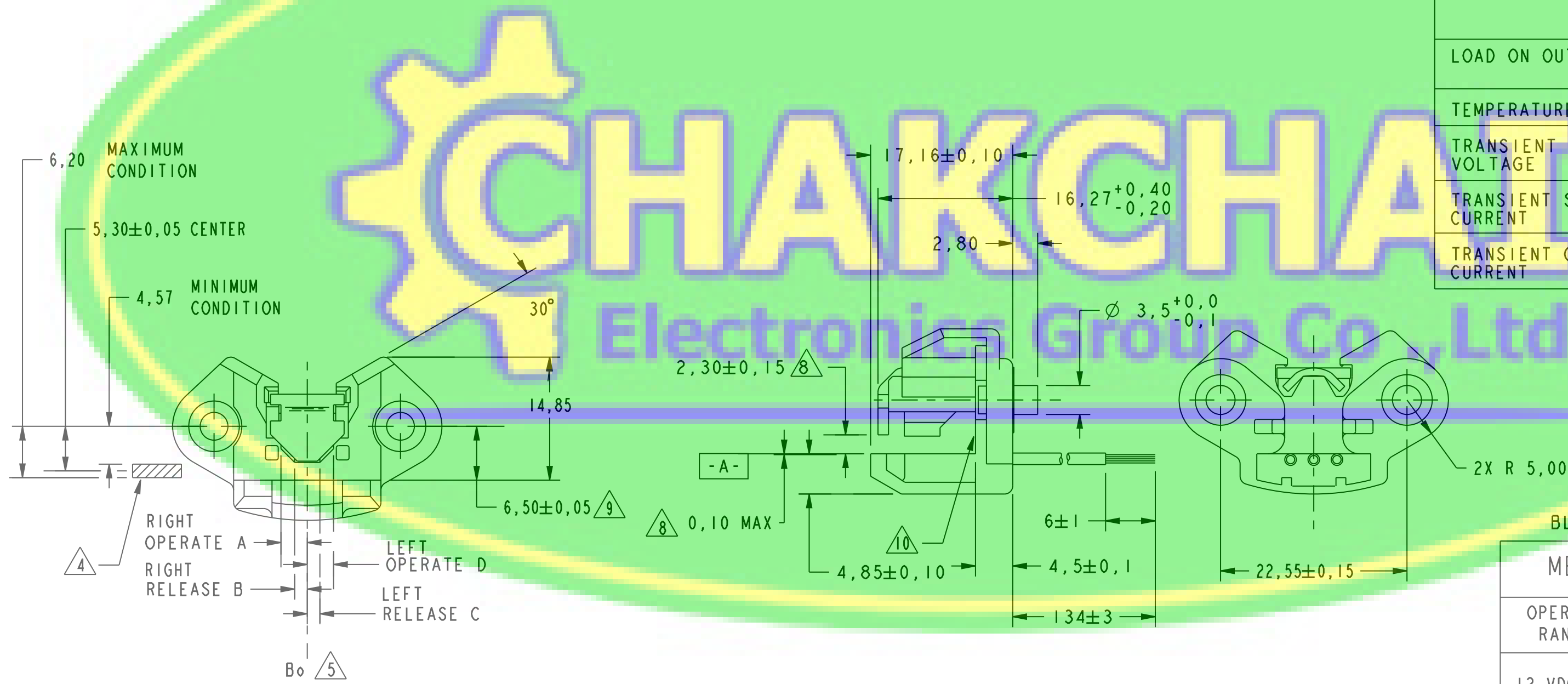
- 1 OVER VOLTAGE RANGE OF 4.5 TO 24 VDC AND TEMPERATURE RANGE OF -40°C TO +150°C
- 2 SWITCH IS OFF (RELEASED) WHEN VANE IS IN GAP
- 3 CHARACTERISTICS MEASURED WITH THE VANE AT NOMINAL DIMENSION AND A 20mA LOAD
- 4 A 0,79±0,01 THICK CRS (ANNEALED 1010-1018 OR LOWER CARBON) VANE OF SHOWN DIMENSIONS IS TO BE USED WHEN CHECKING MECHANICAL CHARACTERISTICS. VANE CENTER TO BE HELD 5,30±0,05 FROM RIVET CENTERLINE
- 5 $B_0 =$ (MECHANICAL CHARACTERISTICS CENTER REFERENCE POINT), DETERMINED BY THE EQUATION: $(A+B+C+D)/4=B_0$. OPERATE = TRAILING EDGE TRIGGER POINT. RELEASE = LEADING EDGE TRIGGER POINT. DIFFERENTIAL = OPERATE MINUS RELEASE (A - C)
- 6 ABSOLUTE MAXIMUM RATINGS ARE THE EXTREME LIMITS THE DEVICE WILL WITHSTAND WITHOUT PERMANENT DAMAGE TO THE DEVICE. HOWEVER, DEVICE OPERATION IS NOT GUARANTEED AS MAXIMUM LIMITS ARE APPROACHED
- 7 MAX RISE TIME IS BASED ON 4700 pF +20% -10% CAPACITOR FROM OUTPUT TO COMMON (GROUND)
- 8 THIS DIMENSION TO BE MEASURED FROM BASE OF IC TOWER TO MAGNET FACE. STEADY STATE DEFLECTION AT TOP OF IC TOWER MAY NOT EXCEED 0,10 ABSOLUTE, RELATIVE TO DATUM A
- 9 THIS DIMENSION TO BE MEASURED FROM BASE OF IC TOWER TO RIVET CENTERLINE
- 10 EPOXY IN THIS AREA MAX. 0,3 HEIGHT PERMISSIBLE
- 11 CATALOG LISTING AND DATE CODE MARKED THIS SURFACE
- 12 A POSITIVE DELTA OPERATE MEANS THE OPERATE POINT IS MOVING AWAY FROM B_0 . A POSITIVE DELTA RELEASE MEANS THE RELEASE POINT IS MOVING TOWARD B_0 . DELTAS ARE REFERENCED FROM CHARACTERISTIC MEASUREMENT AT 12 VDC AND 25°C
- 13 WIRES ARE 24 AWG CROSS-LINKED POLYETHYLENE

ELECTRICAL CHARACTERISTICS

| | TYP 25° C | CURRENT SINK | |
|--|------------------|---------------|---|
| | | MAX | REMARKS |
| SUPPLY CURRENT | 10 mA | 22 mA | PLUS LOAD CURRENT |
| OUTPUT VOLTAGE (OPERATED) (ON) | 0.2 VOLTS | 0.4 VOLTS | 20 mA MAX LOAD |
| OUTPUT LEAKAGE CURRENT (RELEASED) (OFF) | 0.2 μA | 10 μA | OUTPUT TRANSISTOR LEAKAGE |
| OUTPUT SWITCHING TIME RISE TIME (REL. POINT) FALL TIME (OPER. POINT) | 6.2 μS 0.2 μS | 12 μS 1 μS | 40 mA LOAD 10% TO 90% 90% TO 10%# |

ABSOLUTE MAXIMUM RATINGS

| | |
|--------------------------------------|--|
| SUPPLY VOLTAGE (V _s) | -40 TO +30 |
| VOLTAGE EXTERNALLY APPLIED TO OUTPUT | +40 VDC MAX WITH SWITCH IN "OFF" CONDITION ONLY -0.8 VDC MIN WITH SWITCH IN "ON" OR "OFF" CONDITION |
| LOAD ON OUTPUT | 40 mA 5 MIN, MAX |
| TEMPERATURE | -40°C TO +160°C 2 HR MAX |
| TRANSIENT SUPPLY VOLTAGE | +80V FOR 250 mSEC MAX |
| TRANSIENT SUPPLY CURRENT | -.5 A TO +.5 A FOR 15 μ SEC MAX |
| TRANSIENT OUTPUT CURRENT | -.5 A TO +.5 A FOR 15 μ SEC MAX |



BLOCK DIAGRAM SHOWING CURRENT SINKING OUTPUT

MECHANICAL CHARACTERISTICS

| OPERATING RANGE | LEFT OR RIGHT | | | DIFFERENTIAL L TO R, R TO L |
|--------------------------|---------------|-------------|------------|-----------------------------|
| | OPERATE | RELEASE | DIFF. | |
| 12 VDC | 1,19 ±0,30 | -1,04 ±0,33 | 0,38 ±0,33 | 2,21 ±0,64 |
| 25°C | -0,03 ±0,25 | 0,03 ±0,20 | | 0,03 ±0,25 |
| 12V, 25°C TO 4.5V, -40°C | 0,05 ±0,18 | -0,03 ±0,15 | | -0,03 ±0,23 |
| 12V, 25°C TO 4.5V, 150°C | 0,03 ±0,46 | -0,03 ±0,48 | | -0,03 ±0,53 |
| 12V, 25°C TO 24V, 150°C | 0,03 ±0,51 | -0,03 ±0,51 | | -0,03 ±0,53 |

CAUTION ELECTROSTATIC SENSITIVE DEVICES DO NOT OPEN OR HANDLE EXCEPT AS A STATIC FREE ORGANIZATION

ESD SENSITIVITY: CLASS 3

THIRD ANGLE PROJECTION

SCALE 2:1

DO NOT SCALE PRINT

TOLERANCES APPLY TO DESIGN UNITS. CONVERSIONS ARE ONLY FOR REFERENCE. UNLESS NOTED, TOLERANCES ARE:

| NO PLACES | DIM. | TOL. | DIM. | TOL. |
|--------------|--------|-------------|-------|-----------|
| | | | | |
| ONE PLACE | X | 1/16 | 1.5 | 0.38 |
| TWO PLACES | X, XX | 0.01/0.016 | 0.125 | 0.38/0.63 |
| THREE PLACES | X, XXX | 0.001/0.006 | 0.125 | 0.13/0.63 |

DESIGN UNITS: SI METRIC [X] US CUSTOMARY []

WEIGHT

PTC/CAD 2D
 TSM 3 FEB 00 CHECK SAV 3 FEB 00 CHECK RS
 11 JUN 00
 0066220
 3 FEB 00
 C095751
 11 JUN 00
 REPLACES X92982-AV
 DRAWING NUMBER
 2AV54
 RELEASE NO. PR-18516
 PAGE 1 OF 1
 ISSUE 8

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MICRO SWITCH
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FED. MFG. CODE 91929

SOLID STATE VANE SWITCH

CATALOG LISTING
2AV54

ANSI Y14.5M-1982 APPLIES