



MAGNETIC CHARACTERISTICS $\sqrt{3}/9$				
TEMPERATURE RANGE	-20°C TO 85°C (10)		25°C	
	MAX	MIN	MAX	MIN
OPERATE GAUSS	25	9	25	9
RELEASE GAUSS	23	5	23	5
DIFFERENTIAL GAUSS	7	2	7	2

**ABSOLUTE MAXIMUM RATING**

SUPPLY VOLTAGE (V <sub>S</sub> )	4.5 TO 5.5 VOLTS DC
VOLTAGE EXTERNALLY APPLIED TO OUTPUT	+20.0 VDC MAX WITH SWITCH IN "OFF" CONDITION ONLY -0.5 VOLTS MIN WITH SWITCH IN "OFF" OR "ON" CONDITION
OUTPUT CURRENT	20 mA
TEMPERATURE	-20°C TO 85°C
MAGNETIC FLUX	NO LIMIT, THE CIRCUIT CANNOT BE DAMAGED BY MAGNETIC OVERDRIVE

**ELECTRICAL CHARACTERISTICS**

	MIN	TYP	MAX	REMARKS
SUPPLY CURRENT (WITHOUT LOAD)		2.5 mA	10.0 mA 5.5 mA	MAX (OPERATED) MAX (RELEASED)
OUTPUT VOLTAGE (OPERATED)		0.25V	0.40V	SINKING 20 mA MAX
OUTPUT LEAKAGE CURRENT (RELEASED)			10 μA	LEAKAGE INTO SWITCH OUTPUT
OUTPUT SWITCHING TIME (SINKING 8 mA)				
RISE TIME		0.2 μS	1.5 μS	10% TO 90%
FALL TIME		0.1 μS	0.5 μS	90% TO 10%

**NOTES**

TO TEST THE SWITCH AGAINST THE SPECIFIED OPERATING CHARACTERISTICS THE SWITCH MUST BE PLACED IN A HELMHOLTZ COIL FIELD AND GIVEN THE FOLLOWING HISTORY: 35 GAUSS MINIMUM IN DIRECTION "A"; 35 GAUSS MINIMUM IN DIRECTION "B"; TEST TO THE OPERATING CHARACTERISTICS IN DIRECTION "B" (THIS ASSUMES THE CONVENTION THAT THE DIRECTION OF THE EXTERNAL FLUX OF A MAGNET IS FROM THE NORTH TO THE SOUTH POLE OF A MAGNET) THE SWITCH WILL OPERATE WITH THE FLUX FROM EITHER POLE OF A MAGNET WHEN APPLIED IN THE DIRECTION AND LOCATION SHOWN

AT SUPPLY VOLTAGE OF 5 VDC AND OVER THE TEMPERATURE RANGE SPECIFIED AT 24° ± 2° C, AND 5 VDC ± 0.5% SUPPLY VOLTAGE

INTEGRATED CIRCUIT PLACEMENT TOLERANCE

PROTECTIVE HARD OVERCOAT

SOLDER TERMINALS USING 60/40 ROSIN CORE SOLDER EMPLOYING A 750°F CONTROLLED TEMPERATURE 1/8 INCH CHISEL TIP SOLDERING IRON. CAUTION: THE SOLDER TIP SHOULD NEVER BE HELD ON THE TERMINAL FOR OVER 4 SECONDS IN ORDER TO AVOID DELAMINATION OF THE TERMINALS FROM THE CERAMIC

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

THE MAGNETIC CHARACTERISTICS OF THE SWITCH MAY BE AFFECTED BY STRAY MAGNETIC FIELDS

FOR REFERENCE ONLY

FORMTEK DRAWING NUMBER SS21PE 7 M PAGE 1 OF 1  
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 REFERENCE: X81129-SS PR-21016



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**MICRO SWITCH**  
a Honeywell Division

**SOLID STATE SWITCH**

**SS21PE**

FED. MFG. CODE 9-9206

THIRD ANGLE PROJECTION	
SCALE	NONE
DO NOT SCALE PRINT	
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE	
ONE PLACE (.01)	±.030
TWO PLACES (.001)	±.015
THREE PLACES (.0001)	±.005
ANGLES	±
WEIGHT	

MASTER REDUCED