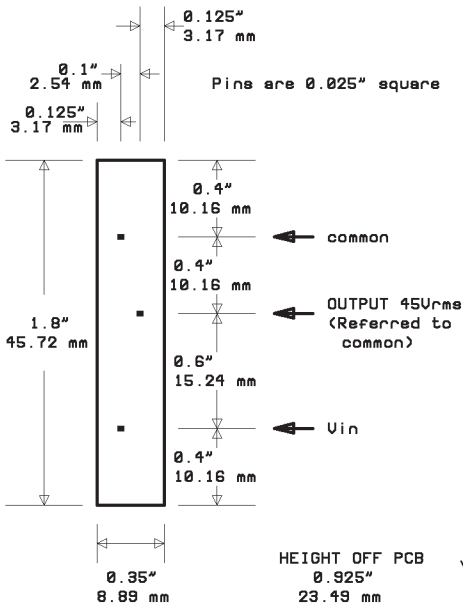


BLACK MAGIC TELEPHONE RINGING GENERATOR -- LOW-COST SQUARE WAVE MODEL P-BMR

=====OPERATING CHARACTERISTICS=====

Specification	Value	Value	Remark
Input voltage (V_{dc})	5	12	5 V unit operate: 4.8-5.5 V 12 V unit operate: 11-16 V >INPUT NOT PROTECTED AGAINST REVERSE POLARITY<
(specify input voltage with p/n code: see Note 5 below)			
Idle current (mA)	~140	~90	
AC Output voltage (V_{pk})			
@ 1 REN	43	47	
@ 2 REN	40	47	
@ 3 REN	38	47	
@ 4 REN	30	47	
@ 5 REN	--	47	
DC Output voltage (V)	-14	-21	Internally generated d.c. bias for ring-trip comparator; measured when called telset off-hook through 300-ohm current-sensing resistor
Output frequency (Hz)	---20±0.5---		To specify custom frequency see Note 5 below
Efficiency (%)	~50	~60	
Operating temp. (° C)	-10-->+70		
Storage temp. (° C)	-10-->+85		

TOP VIEW OF P-BMR



=====NOTES=====

- (1) Device is intended for intermittent duty and should be powered down when not in use. Input power should be gated with semiconductor, not relay, due to inrush current.
- (2) Output may be filtered to reduce potentially interfering harmonics.
- (3) Output is NOT PROTECTED against shorts; circuit must have series resistance of at least 300 Ω, normally part of ring trip circuit. If the latter's current sensing resistor is less than 300 Ω, additional resistance must be added. Ring trip circuit should terminate ringing within 200 ms of off-hook transition.
- (4) Position P-BMR such that magnetic field generated by switching inductor adjacent to common pin does not disturb circuit operation.
- (5) Part numbering system: P-BMRvvFF where vv is input voltage and FF is output frequency.