Aristotle’s points about circle and vicious circle are as follows:

1. Aristotle criticizes some thinkers because ‘they see no difficulty in holding that all truths are demonstrated, on the ground that demonstration may be circular and reciprocal.’ (PsA.,¹ A, 3, 72b16-18)

2. ‘Not all knowledge is demonstrative’ and ‘knowledge of the immediate premises is independent of demonstration.’ Aristotle brings two reasons for this: ‘Since we must know the prior premises from which the demonstration is drawn, and since the regress must end in immediate truths, those truths must be indemonstrable.’ (PsA., A, 3, 72b18-22)

3. Demonstration in the unqualified sense cannot be circular: ‘Demonstration must be based on premises prior to and better known than the conclusion; and the same things cannot simultaneously be both prior and posterior to one another: so circular demonstration is clearly not possible in the unqualified sense of demonstration, but only possible if ‘demonstration be extended to include that other method of argument which rests on a distinction between truths prior to us and truths without qualification prior, i.e. the method by which induction produces knowledge. But if we accept this extension of meaning, our definition of unqualified knowledge will prove faulty; for there seem to be two kinds of it. Perhaps, however, the second form of demonstration, that which proceeds from truths better known to us, is not demonstration in the unqualified sense of the term.’ (PsA., A, 3, 72b23-32)

¹ Abbreviations used in this paper:

PsA.  Posterior Analytics
4. The theory of circular demonstration ‘reduces to the mere statement that if a thing exists, then it does exist- an easy way of providing anything.’ (PsA., A, 3, 72b32-34)

5. ‘To constitute the circle it makes no difference whether many terms or few or even only one is taken. Thus by direct proof, if A is, B must be; if B is, C must be; therefore, if A is, C must be. Since then- by the circular proof- if A is, B must be, and if B is, A must be. A may be substituted for C above. Then ‘if B is, A must be’ = ‘if B is, C must be.’ But C and A have been identified. Consequently, the upholders of circular demonstration are in the position of saying that if A is, A must be- a simple way of proving anything. Moreover, even such circular demonstration is impossible except in the case of attributes that imply one another, viz. ‘peculiar’ properties.’ (PsA, A, 3, 72b34-73a7)