```
help eps
 EPS   Spacing of floating point numbers.
    D = EPS(X), is the positive distance from ABS(X) to the next larger in
    magnitude floating point number of the same precision as X.
    X may be either double precision or single precision.
    For all X, EPS(X) = EPS(-X) = EPS(ABS(X)).

    EPS, with no arguments, is the distance from 1.0 to the next larger double
    precision number, that is EPS = 2^(-52).

    EPS('double') is the same as EPS, or EPS(1.0).
    EPS('single') is the same as EPS(single(1.0)), or single(2^-23).

    Except for denormals, if 2^E <= ABS(X) < 2^(E+1), then
       EPS(X) = 2^(E-23) if ISA(X,'single')
       EPS(X) = 2^(E-52) if ISA(X,'double')

    Replace expressions of the form
       if Y < EPS * ABS(X)
    with
       if Y < EPS(X)

    Examples:
       double precision
          eps(1/2) = 2^(-53)
          eps(1)   = 2^(-52)  ←
          eps(2)   = 2^(-51)
          eps(realmax) = 2^971
          eps(0) = 2^(-1074)
          if(abs(x)) <= realmin, eps(x) = 2^(-1074)
          eps(Inf) = NaN
          eps(NaN) = NaN
       single precision
          eps(single(1/2)) = 2^(-24)
          eps(single(1)) = 2^(-23)
          eps(single(2)) = 2^(-22)
          eps(realmax('single')) = 2^104
          eps(single(0)) = 2^(-149)
          if(abs(x)) <= realmin('single'), eps(x) = 2^(-149)
          eps(single(Inf)) = single(NaN)
          eps(single(NaN)) = single(NaN)

    See also <a href="matlab:help realmax">realmax</a>, <a href="matlab:help realmin"

    Overloaded functions or methods (ones with the same name in other directories)
       <a href="matlab:help quantizer/eps.m">help quantizer/eps.m</a>
       <a href="matlab:help qfilt/eps.m">help qfilt/eps.m</a>
       <a href="matlab:help qfft/eps.m">help qfft/eps.m</a>

    Reference page in Help browser
       <a href="matlab:doc eps">doc eps</a>

diary off
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