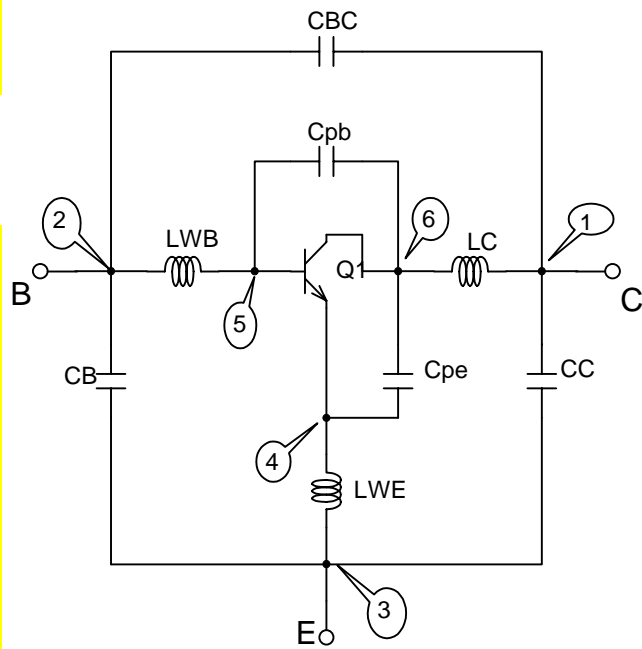


NET LIST

```
.SUBCKT 2SC5317FT 1 2 3
CB      2      3      20 fF
LWB     2      5      8.90 pH
LWE     4      3      804 pH
Cpe     4      6      164 fF
Cpb     5      6      53 fF
LC      6      1      302 pH
CC      1      3      80 fF
CBC     1      2      60 fF
Q1      6      5      4
+      AREA= 1
```

```
.MODEL NPN NPN
+      IS      =      32 aA
+      BF      =      282
+      NF      =      974 m
+      VAF     =      81 V
+      IKF     =      433 mA
+      ISE     =      3.42 pA
+      NE      =      2.58
+      BR      =      21
+      NR      =      981 m
+      VAR     =      1.43 V
+      IKR     =      8.30 mA
+      ISC     =      60 aA
+      NC      =      1.05
+      RB      =      3.00 Ohm
+      IRB     =      1.11 uA
+      RBM     =      2.33 Ohm
+      RE      =      1.30 Ohm
+      RC      =      5.89 Ohm
+      XTB     =      0.00
+      EG      =      1.11 eV
+      XTI     =      3.00
+      CJE     =      253 fF
+      VJE     =      917 mV
+      MJE     =      409 m
+      TF      =      5.95 ps
+      XTF     =      5.00
+      VTF     =      5.00 V
+      ITF     =      195 mA
+      PTF     =      109 deg
+      CJC     =      388 fF
+      VJC     =      414 mV
+      MJC     =      179 m
+      XCJC    =      1.00
+      TR      =      1.00 ns
+      FC      =      867 m
```

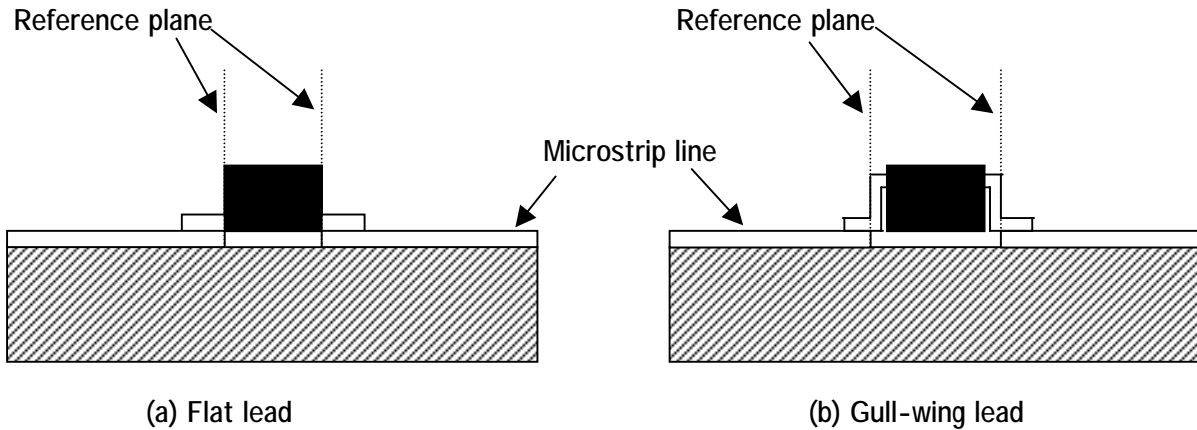
.ENDS



Equivalent circuit

Note 1: This data is valid for up to 3 GHz.

Note 2: These parameters do not take into account the part of the lead which lies outside the reference plane when the device is mounted on the circuit board.



Side view of mounted device

Note 3: The measurements shown in this document are given only as sample characteristics. Moreover, these sample parameters are not guaranteed for when the device is used in the mass production of equipment, since the high-frequency (AC) characteristics of these devices will be affected by the external components which the customer uses, by the design of the circuits and by various other conditions. It is the responsibility of the customer to check the characteristics of a design. Toshiba assumes no responsibility for the integrity of customer circuit designs or applications.