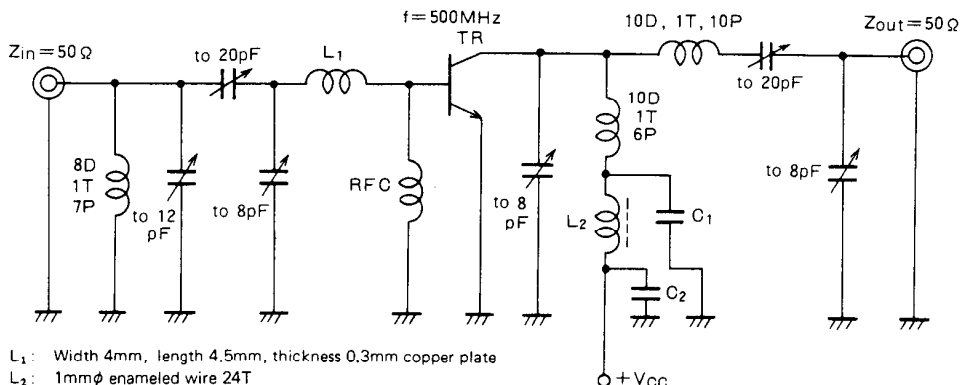




**NPN EPITAXIAL PLANAR TYPE**

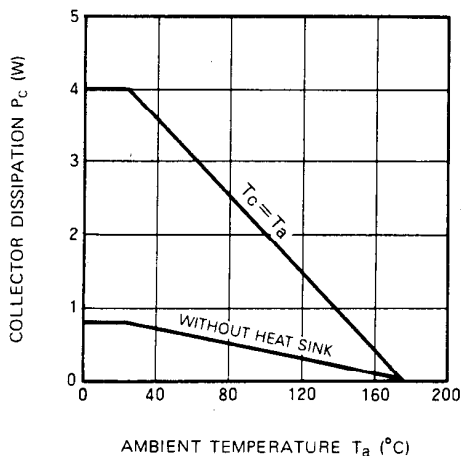
**TEST CIRCUIT**



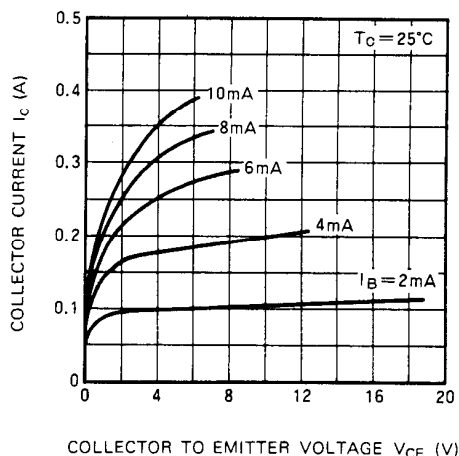
- L<sub>1</sub>: Width 4mm, length 4.5mm, thickness 0.3mm copper plate
- L<sub>2</sub>: 1mmφ enameled wire 24T
- RFC: 0.3mmφ enameled wire 25T to 30T
- C<sub>1</sub>: 50pF, 100pF, 2200pF, 0.005μF, 0.0022μF in parallel
- C<sub>2</sub>: 0.02μF, 0.047μF, 0.47μF in parallel
- Notes: Coils are made from 1.5mmφ silver plated copper wire except L<sub>1</sub>, L<sub>2</sub> & RFC
- D: Inner diameter of coil      P: Pitch of coil
- T: Turn number of coil      Coil dimensions in milli-meter

**TYPICAL PERFORMANCE DATA**

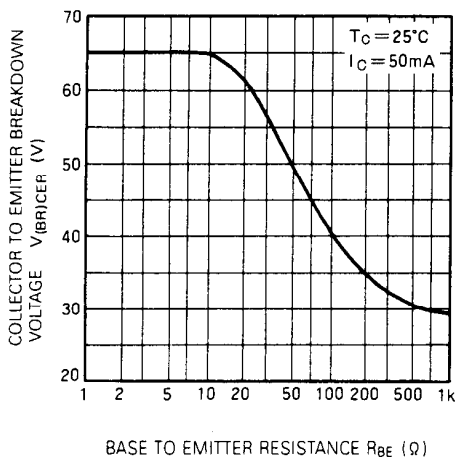
**COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE**



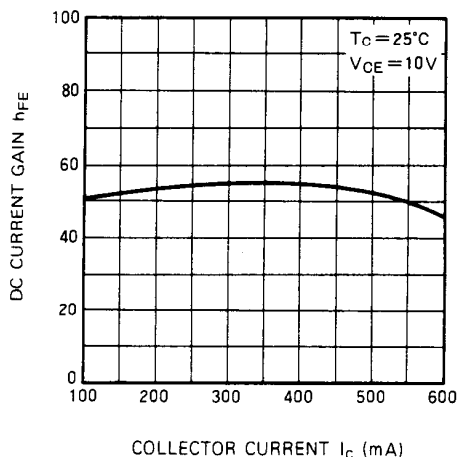
**COLLECTOR CURRENT VS. COLLECTOR TO EMITTER VOLTAGE**



**COLLECTOR TO EMITTER BREAKDOWN VOLTAGE VS. BASE TO EMITTER RESISTANCE**

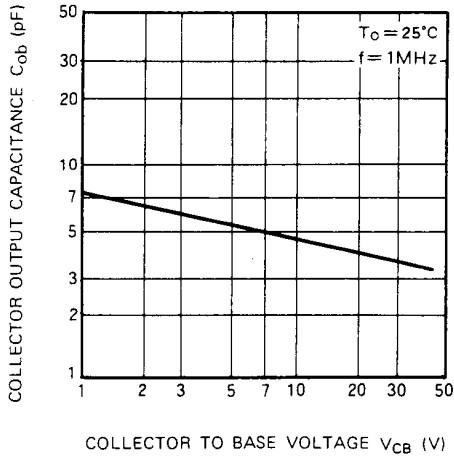


**DC CURRENT GAIN VS. COLLECTOR CURRENT**

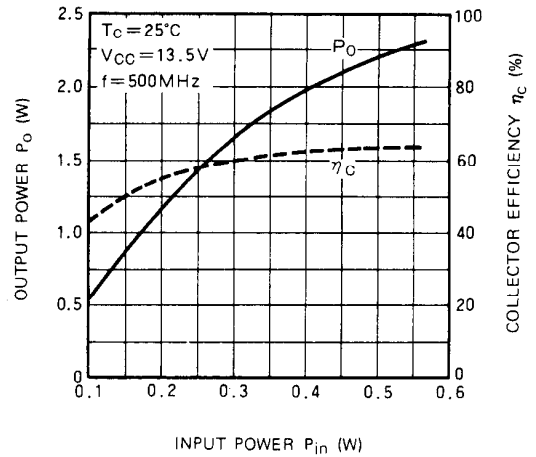


**NPN EPITAXIAL PLANAR TYPE**

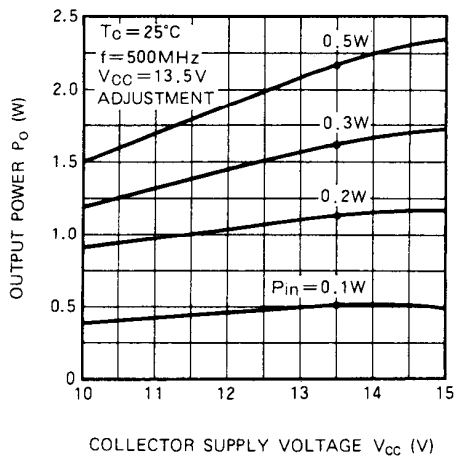
**COLLECTOR OUTPUT CAPACITANCE VS. COLLECTOR TO BASE VOLTAGE**



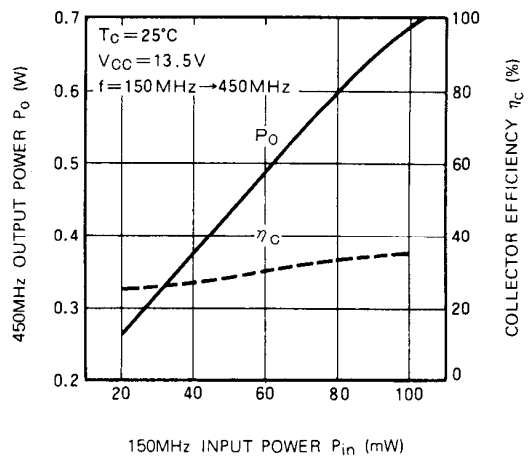
**OUTPUT POWER, COLLECTOR EFFICIENCY VS. INPUT POWER**



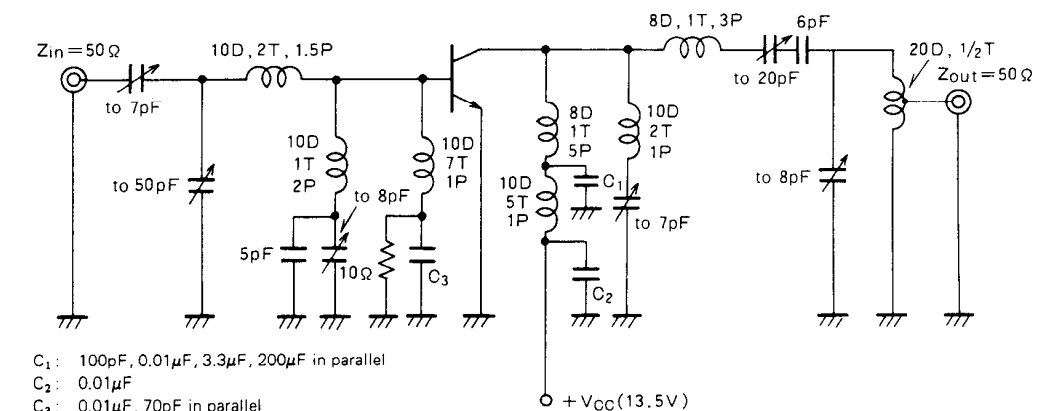
**OUTPUT POWER VS. COLLECTOR SUPPLY VOLTAGE**



**TRIPLER OUTPUT POWER, COLLECTOR EFFICIENCY VS. INPUT POWER**



**APPLICATION CIRCUIT TRIPLER CIRCUIT DIAGRAM (150MHz → 450MHz)**



- C<sub>1</sub>: 100pF, 0.01μF, 3.3μF, 200μF in parallel
  - C<sub>2</sub>: 0.01μF
  - C<sub>3</sub>: 0.01μF, 70pF in parallel
- Notes: All coils are made from 1.5mmφ silver plated copper wire  
 D: Inner diameter of coil  
 T: Turn number of coil  
 P: Pitch of coil  
 Dimension in milli-meter