



NOTES:

1. D₁: JPAD-500, D₂, D₃: BAT-85, R₅, R₆, R₈: TRW-IRC TYPE MAR-6, 1% METAL-FILM, C₄, C₅: WIMA TYPE FKP-2 CAPACITORS, AND C₇, C₈: WIMA TYPE MKS-2 CAPACITORS.
2. CONNECT ALL COMPONENTS AT Q₁'S COLLECTOR WITH A MINIMUM-AREA AIR-INSULATED "FLOATING" JUNCTION OVER A RELIEVED AREA OF GROUND TO MINIMIZE STRAY CAPACITANCE.
3. ENCLOSE R₁₁ AND ITS CONNECTIONS TO R₉, R₁₀, IC₁'S INVERTING INPUT, C₇, AND PINS 5 AND 12 OF IC₅ WITHIN SOLDER- AND COMPONENT-SIDE GUARD TRACES TO INTERCEPT ANY BOARD-SURFACE LEAKAGE CURRENTS. (NOTE THAT THE DASHED LINE DEFINES THE GUARD TRACE.)
4. CONNECT IC₂'S UNUSED INPUTS TO GROUND. THE SCHEMATIC OMITTS POWER-SUPPLY CONNECTIONS TO MOST ICs FOR CLARITY

Figure 1 Featuring a 160-dB dynamic range corresponding to a 1-Hz- to 100-MHz-frequency span, this voltage-to-frequency converter operates from a single 5V power supply.