

6367255 MOTOROLA SC (DIODES/OPTO)

34C 38098 D

SILICON RF TRANSISTOR DICE (continued)

T-31-23

DIE NO. **MRFC8004** — NPN LINE SOURCE — RF502.148



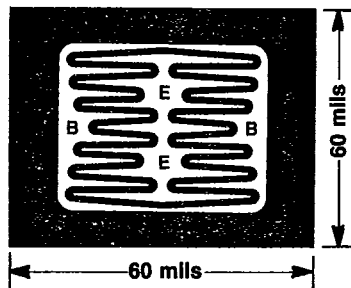
This die provides performance equal to or better than that of the following device types:

MRF8004

Designed for use in citizen-band up to 30 MHz. High breakdown voltages allow a high percentage of up-modulation in AM circuits.

- Specified 12.5 Vdc, 27 MHz Characteristics
 $P_{out} = 3.5$ watts @ 30 MHz

6



Backside Collector

METALLIZATION —

Top Al
 Back Au

BACKSIDE GOLD 3000Å

DIE THICKNESS 6 ± 2 mils

BONDING PAD SIZE —

Emitter 5.2×6.6 mils
 Base 5.1×5.2 mils

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$, Note 1)

Parameter	Test Conditions	Min	Max	Unit
BV_{CEO}	$I_C = 50$ mAdc	30	—	Vdc
BV_{CES}^*	$I_C = 200$ mAdc	60	—	Vdc
BV_{EBO}	$I_E = 1.0$ mAdc	3.0	—	Vdc
I_{CBO}	$V_{CB} = 15$ Vdc	—	10	μAdc
h_{FE}	$I_C = 400$ mAdc, $V_{CE} = 2.0$ Vdc	10	—	—

*Pulsed through 25 mH inductor

- NOTES: 1. Because of the limitations of probe testing, only dc parameters are tested. These parameters must be measured using pulse techniques: pulse width ≤ 300 μs , duty cycle $\leq 2\%$.
 2. Detailed device characteristics are available from your Motorola sales representative.