

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 x 6.6 mils

Base ..... 5.1 x 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	$\mu\text{Adc}$
$h_{FE}$	$I_C = 400$ 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  $\leq 300$   $\mu\text{s}$ , duty cycle  $\leq 2\%$ .
  2. Detailed device characteristics are available from your Motorola sales representative.