

DIE NO. **MRFC8003** — NPN
 LINE SOURCE — RF502.147



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

MRFC8003

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

- $P_{out} = 0.4$ watts @ $f = 30$ MHz

Backside Collector

METALLIZATION —
 Top Al
 Back Au

BACKSIDE GOLD 3000Å

DIE THICKNESS 6 ± 2 mils

BONDING PAD SIZE —
 Emitter 4.8 x 7.5 mils
 Base 4.8 x 8.5 mils

GLASSIVATION — The die active area, except for bond windows, is covered with Glassivation to protect from contaminants and accidental bonding.

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

Parameter	Test Conditions	Min	Max	Unit
BV_{CEO}	$I_C = 10$ mAdc	30	—	Vdc
BV_{CES}	$I_C = 0.1$ mAdc	50	—	Vdc
BV_{EBO}	$I_E = 0.5$ mAdc	3.0	—	Vdc
I_{CBO}	$V_{CB} = 12$ Vdc	—	0.1	mAdc
h_{FE}	$I_C = 100$ mAdc, $V_{CE} = 10$ Vdc	20	150	—

- 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.