

DIE NO. **2C5583** — PNP  
 LINE SOURCE — RF502.59

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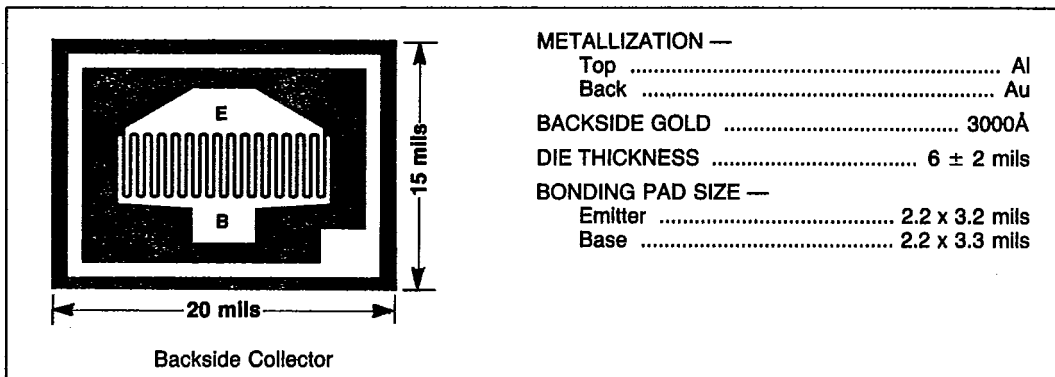


This die provides performance equal to or better than that of the following device types:

2N5583

High-frequency low-to-medium power PNP transistor designed for class A, B and C amplifiers, oscillators, mixers, multipliers and high-speed switches in the 1-1000 MHz frequency range.

- $f_T \leq 1.3$  GHz @ 10V/100 mA



METALLIZATION —

Top ..... Al  
 Back ..... Au

BACKSIDE GOLD ..... 3000Å

DIE THICKNESS .....  $6 \pm 2$  mils

BONDING PAD SIZE —

Emitter .....  $2.2 \times 3.2$  mils  
 Base .....  $2.2 \times 3.3$  mils

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

Parameter	Test Conditions	Min	Max	Unit
$BV_{CEO}$	$I_C = 10$ mAdc	30	—	Vdc
$BV_{CBO}$	$I_C = 10$ $\mu$ Adc	30	—	Vdc
$BV_{EBO}$	$I_E = 100$ $\mu$ Adc	3.0	—	Vdc
$I_{CBO}$	$V_{CB} = 20$ Vdc	—	50	nAdc
$h_{FE1}$	$V_{CE} = 2.0$ Vdc, $I_C = 40$ mAdc	20	—	—
$h_{FE2}$	$V_{CE} = 2.0$ Vdc, $I_C = 100$ mAdc	25	100	—
$h_{FE3}$	$V_{CE} = 5.0$ Vdc, $I_C = 300$ mAdc	15	—	—
$V_{CE(sat)}$	$I_C = 100$ mAdc, $I_B = 10$ mAdc	—	0.8	Vdc

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