TEMIC

TELEFUNKEN Semiconductors

BF 550 / BF 550 R

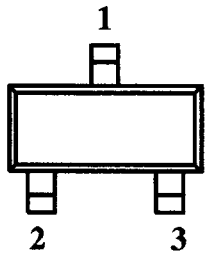
Silicon PNP HF Transistor

Applications

RF-IF amplifier specially for thick and thin film circuits.

Features

- High power gain
- Low noise figure



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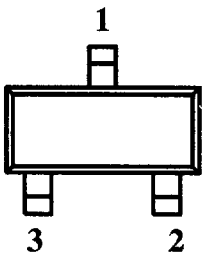
BF550 Marking: G2
Plastic case (SOT 23)
1= Collector; 2= Base; 3= Emitter



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BF550R Marking: G5
Plastic case (SOT 23R)
1= Collector; 2= Base; 3= Emitter

Absolute Maximum Ratings

Parameters	Symbol	Value	Unit
Collector-base voltage	$-V_{CBO}$	40	V
Collector-emitter voltage	$-V_{CEO}$	40	V
Emitter-base voltage	$-V_{EBO}$	4	V
Collector current	$-I_C$	25	mA
Total power dissipation on ceramic substrat (7 x 5 x 0.6) mm^3 $T_{amb} \leq 60°C$	P_{tot}	200	mW
Junction temperature	T_j	125	°C

Maximum Thermal Resistance

Parameters	Symbol	Value	Unit
Junction ambient on ceramic substrat (7 x 5 x 0.6) mm^3	R_{thJA}	530	K/W

BF 550 / BF 550 R

Electrical Characteristics

T_{amb} = 25°C, unless otherwise specified

Parameters / Test Conditions	Symbol	Min.	Typ.	Max.	Unit
Collector cut-off current $-V_{CB}$ = 30 V, I_E = 0 A	$-I_{CBO}$			50	nA
Base-emitter voltage $-V_{CE}$ = 10 V, $-I_C$ = 1 mA	$-V_{BE}$		750		mV
DC forward current transfer ratio $-V_{CE}$ = 10 V, $-I_C$ = 1 mA	h_{FE}	50			
Gain bandwidth product $-V_{CB}$ = 10 V, $-I_C$ = 1 mA, f = 100 MHz	f_T		350		MHz
Feedback capacitance $-V_{CB}$ = 10 V, $-I_C$ = 1 mA, f = 100 MHz	C_{re}		0.5		pF
Noise figure $-V_{CE}$ = 10 V, $-I_C$ = 1 mA, R_G = 300 Ω, f = 200 MHz	F_b		2		dB

Dimensions in mm