New Jersey Semi-Conductor Products, Inc.

20 STERN AVE. SPRINGFIELD, NEW JERSEY 07081 U.S.A.

BLV37

TELEPHONE: (973) 376-2922 (212) 227-6005 FAX: (973) 376-8960

VHF PUSH-PULL POWER TRANSISTOR

Push-pull npn silicon planar epitaxial transistor primarily intended for use in VHF broadcast transmitters.

Features

- Internally matched input for wideband operation and high power gain
- Implanted ballasting resistors for an optimum temperature profile
- Gold metallization ensures excellent reliability.

The transistor has a 5-lead rectangular flange envelope with a ceramic cap. All leads are isolated from the flange.

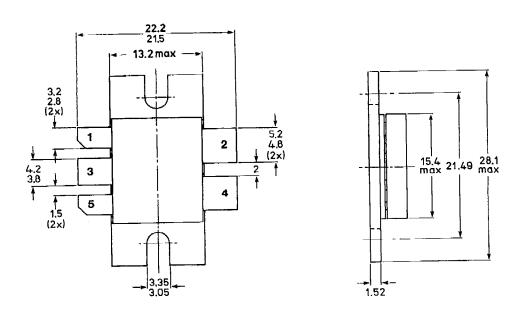
QUICK REFERENCE DATA

BF performance at $T_h = 25 \text{ °C}$ in a common-emitter class-B push-pull test circuit.

mode of operation	f	V _{CE}	PL	Gp	n _c
	MHz	V	W	dB	%
CW class-B	108	28	250	> 10.5	> 60

MECHANICAL DATA

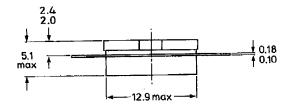
SOT179 (see Fig.1).





NJ Semi-Conductors reserves the right to change test conditions, parameters limits and package dimensions without notice information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors



Pinning:

1 = Collector	(No. 2)
2 = Base	(No. 2)
3 = Emitter	
4 = Base	(No. 1)
5 = Collector	(No. 1)

Fig.1 SOT179.

Torque on screw:

max. 0.75 Nm Recommended screw: cheese head 4-40 UNC/2A Heatsink compound must be applied sparingly and evenly distributed.

min. 0.60 Nm

RATINGS (per transistor section unless otherwise specified)				
Limiting values in accordance with the Absolute Maximum System	(IEC 134)			
Collector-emitter voltage VBE = 0; peak value	VCESM	max.	65	v
Collector-emitter voltage open base	VCEO	max.	36	v
Emitter-base voltage (open collector)	VEBO	max.	4.0	V
Collector current DC or average peak (f > 1 MHz)	IC; IC(AV) ICM	max. max.	10 30	
DC power dissipation (both sections)* T _{mb} = 25 °C, f > 1 MHz	P _{tot}	max.	290	w
RF power dissipation (both sections)* T _{mb} ≈ 25 °C, f > 1 MHz	P _{tot}	max.	450	w
Storage temperature range	T _{stg}	-65 to ·	+ 150	oC
Operating junction temperature	Тј	max.	200	oC

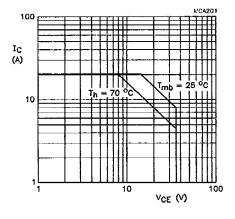
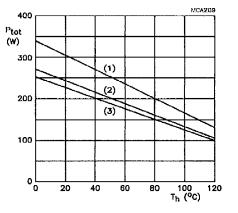


Fig.2 DC SOAR.



(1) short-time operation

(2) continuous RF operation (f > 1 MHz)

(3) continuous DC operation

Fig.3 Power/temperature derating curves.