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BLV37

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.

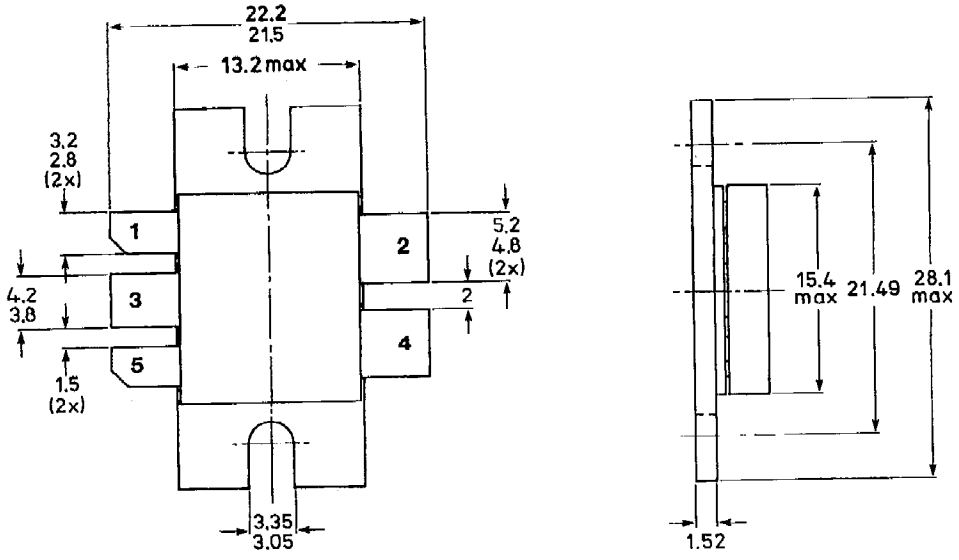
QUICK REFERENCE DATA

RF performance at T_h = 25 °C in a common-emitter class-B push-pull test circuit.

mode of operation	f MHz	V_{CE} V	P_L W	G_P dB	η_c %
CW class-B	108	28	250	> 10.5	> 60

MECHANICAL DATA

SOT179 (see Fig.1).



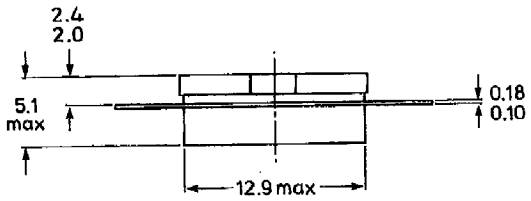


Fig.1 SOT179.

Pinning:

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

Torque on screw: min. 0.60 Nm
max. 0.75 Nm
Recommended screw: cheese head 4-40 UNC/2A
Heatsink compound must be applied sparingly and evenly distributed.

RATINGS (per transistor section unless otherwise specified)

Limiting values in accordance with the Absolute Maximum System (IEC 134)

Collector-emitter voltage V_{BE} = 0; peak value	V_{CESM}	max.	65 V
Collector-emitter voltage open base	V_{CEO}	max.	36 V
Emitter-base voltage (open collector)	V_{EBO}	max.	4.0 V
Collector current DC or average peak (f > 1 MHz)	I_C; $I_{C(AV)}$ I_{CM}	max. max.	10 A 30 A
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 °C
Operating junction temperature	T_j	max.	200 °C

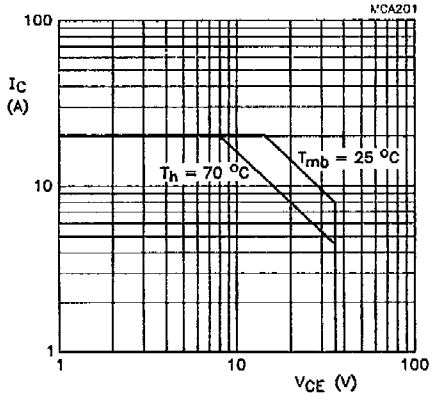
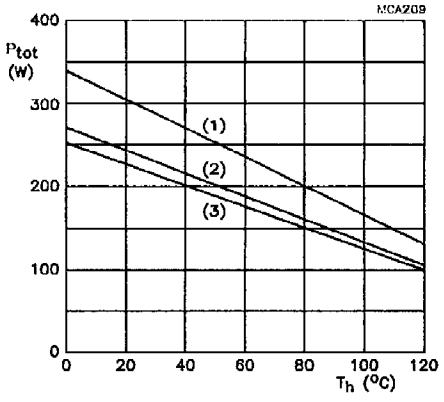


Fig.2 DC SOAR.



(1) short-time operation
(2) continuous RF operation (f > 1 MHz)
(3) continuous DC operation

Fig.3 Power/temperature derating curves.