

UHF linear power transistor

BLW33

DESCRIPTION

N-P-N silicon planar epitaxial transistor primarily intended for use in **linear u.h.f. amplifiers** for television transmitters and transposers. The **excellent d.c. dissipation properties** for class-A operation are obtained by means of diffused emitter ballasting resistors and a multi-base structure, providing an optimum temperature profile on the crystal

area. The combination of optimum thermal design and the application of **gold sandwich metallization** realizes excellent reliability properties.

The transistor has a 1/4" capstan envelope with ceramic cap.

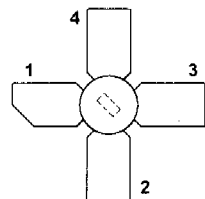
QUICK REFERENCE DATA

MODE OF OPERATION	f_{vision} MHz	V_{CE} V	I_{C} mA	T_{h} °C	$d_{\text{im}}^{(1)}$ dB	$P_{\text{o sync}}^{(1)}$ W	G_{p} dB
class-A; linear amplifier	860	25	300	70	-60	> 1,0	> 10,0
	860	25	300	25	-60	typ. 1,15	typ. 10,5

Note

1. Three-tone test method (vision carrier -8 dB, sound carrier -7 dB, sideband signal -16 dB), zero dB corresponds to peak sync level.

PIN CONFIGURATION

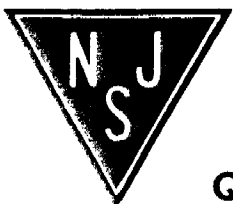


Top view MBK187

Fig.1 Simplified outline. SOT122A.

PINNING - SOT122A.

PIN	DESCRIPTION
1	collector
2	emitter
3	base
4	emitter



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RATINGS

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

Collector-emitter voltage

(peak value); $V_{BE} = 0$

open base

Emitter-base voltage (open collector)

Collector current

d.c. or average

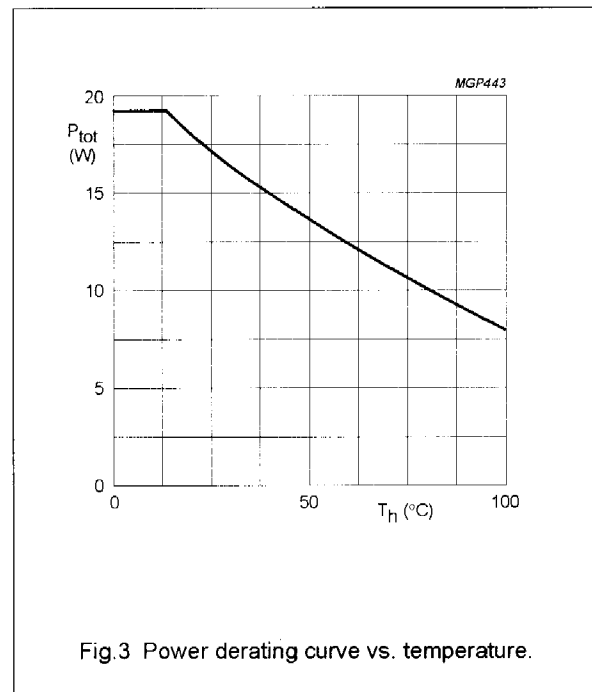
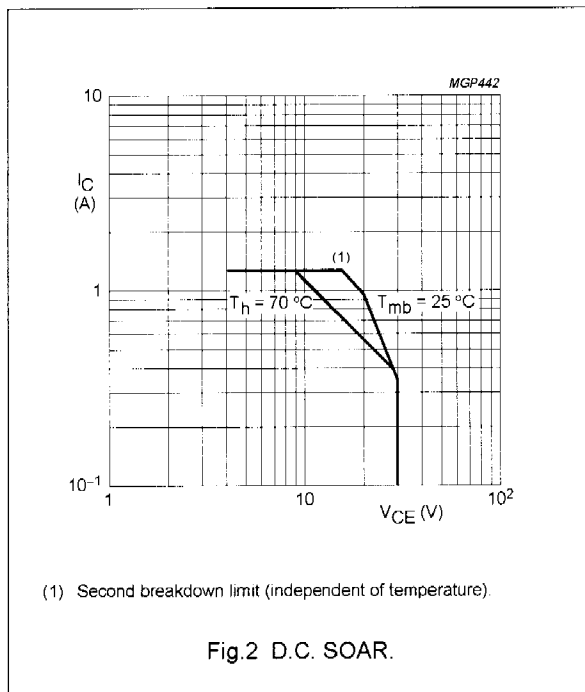
(peak value); $f > 1$ MHz

Total power dissipation up to $T_{mb} = 25$ °C

Storage temperature

Operating junction temperature

V_{CESM}	max.	50 V
V_{CEO}	max.	30 V
V_{EBO}	max.	4 V
I_C	max.	1,25 A
I_{CM}	max.	1,9 A
P_{tot}	max.	19,3 W
T_{stg}		-65 to +150 °C
T_j	max.	200 °C



THERMAL RESISTANCE (see Fig.4)

From junction to mounting base

(dissipation = 7,5 W; $T_{mb} = 74,5$ °C; i.e. $T_h = 70$ °C)

From mounting base to heatsink

$R_{th\ j-mb}$	=	10,1 KW
$R_{th\ mb-h}$	=	0,6 KW

PACKAGE OUTLINE

Studded ceramic package; 4 leads

SOT122A

