TP2325

Advance Information

The RF Line

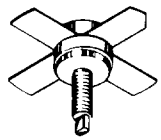
VHF Power Transistor

25 W — 175 MHz
VHF POWER
TRANSISTOR
NPN SILICON

The TP2325 is designed for use in 12.5 V VHF amplifiers operating under Class A, B or C conditions.

Its construction which incorporates gold metallization and diffused ballast resistors enables the part to be used at its maximum ratings and be able to withstand an infinite VSWR at all phase angles.

- 175 MHz
- 25 W — P_{out}
- 12.5 V — V_{CC}
- Gold Metallization for Reliability



CASE 145D-01, STYLE 1
(.380 SOE)

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	16	Vdc
Collector-Base Voltage	V_{CBO}	36	Vdc
Emitter-Base Voltage	V_{EBO}	4	Vdc
Collector Current — Continuous	I_C	8	Adc
Operating Junction Temperature	T_J	200	°C
Storage Temperature Range	T_{stg}	−65 to +200	°C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	2.2	°C/W

ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
OFF CHARACTERISTICS					
Collector-Emitter Breakdown Voltage (I_C = 50 mA, I_B = 0)	$V_{(BR)CEO}$	16	—	—	Vdc
Collector-Base Breakdown Voltage (I_C = 50 mA, I_E = 0)	$V_{(BR)CBO}$	36	—	—	Vdc
Emitter-Base Breakdown Voltage (I_E = 5 mA, I_C = 0)	$V_{(BR)EBO}$	4	—	—	Vdc
Collector Cutoff Current (V_{CB} = 15 V, I_E = 0)	I_{CBO}	—	—	5	mAdc
Collector-Emitter Breakdown Voltage (I_C = 50 mA, R_{BE} = 10 Ω)	$V_{(BR)CER}$	35	—	—	Vdc
ON CHARACTERISTICS					
DC Current Gain (I_C = 1 A, V_{CE} = 5 V)	h_{FE}	10	—	—	—
FUNCTIONAL TESTS					
Common-Emitter Amplifier Power Gain (V_{CE} = 12.5 V, P_{out} = 25 W, f = 175 MHz)	G_{PE}	6.2	—	—	dB
Collector Efficiency (V_{CE} = 12.5 V, P_{out} = 25 W, f = 175 MHz)	η_C	60	—	—	%

This document contains information on a new product. Specifications and information herein are subject to change without notice.