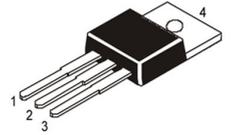


Pin Configuration

- 1.Base
- 2.Emitter
- 3.Collector
- 4.Emitter



Description

The Eleflow 2SC1971 is a silicon NPN epitaxial planar type transistor designed for RF power amplifiers within the VHF band, ideal for mobile radio applications.

Features

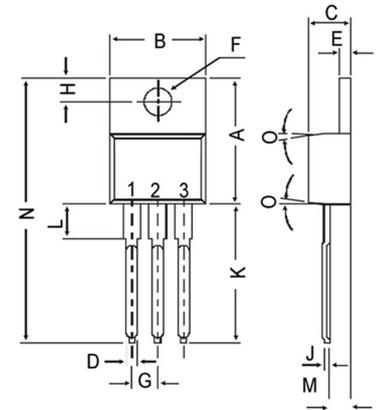
- High power gain: $G_{pe} \geq 10\text{dB}$
@ $V_{cc} = 13.5\text{V}$, $P_o = 6\text{W}$, $f = 175\text{MHz}$
- Emitter ballasted construction for reliability and performance.
- Manufactured incorporating recyclable RoHS compliant materials.
- Ability to periodically withstand in excess of 20:1 VSWR load when operated at $V_{cc} = 15.2\text{V}$, $P_o = 6\text{W}$, $f = 175\text{MHz}$.

DIM	MIN.	MAX.
A	14.42	16.51
B	9.63	10.67
C	3.56	4.83
D		0.90
E	1.15	1.40
F	3.75	3.88
G	2.29	2.79
H	2.54	3.43
J		0.56
K	12.70	14.73
L	2.80	4.07
M	2.03	2.92
N		31.24
O		DEG 7

All dimensions in mm

Application

4 to 5 watts output power amplifier applications within the VHF band.



TO-220 Package

Absolute Maximum Ratings (T_c = 25°C unless otherwise specified)

Symbol	Parameter	Conditions	Ratings	Unit
V _{cb0}	Collector to base voltage		35	V
V _{eb0}	Emitter to base voltage		4	V
V _{eco}	Collector to emitter voltage	R _{be} = ∞	17	V
I _c	Collector current		2	A
P _c	Collector dissipation	T _a = 25°C	1.5	W
		T _c = 25°C	12.5	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-55 to 150	°C
R _{th-a}	Thermal resistance	Junction to ambient	83	°C/W
R _{th-c}		Junction to case	10	°C/W

Note: Above parameters are guaranteed independently

Electrical Characteristics (T_c = 25°C unless otherwise specified)

Symbol	Parameter	Test Conditions	Limits			Unit
			Min	Typ	Max	
V(BR) _{eb0}	Emitter to base breakdown voltage	I _e = 5mA, I _c = 0	4			V
V(BR) _{cb0}	Collector to base breakdown voltage	I _c = 10mA, I _e = 0	35			V
V(BR) _{ceo}	Collector to emitter breakdown voltage	I _c = 50mA, R _{be} = ∞	17			V
I _{cb0}	Collector cut-off current	V _{cb} = 25V, I _e = 0			500	μA
I _{eb0}	Emitter cut-off current	V _{eb} = 3V, I _c = 0			500	μA
h _{fe}	DC forward current gain*	V _{ce} = 10V, I _c = 100mA	10	50	180	
P _o	Output power	V _{cc} = 13.5V, P _{in} = 600mW,	6	7		W
η _c	Collector efficiency	F = 175MHz	60	70		%

Note: *Pulse test, P_w = 150μS, duty = 5%

Above parameters, ratings, limits and conditions are subject to change



eleflow
Technologies

China

Eleflow Technologies (HQ)
Suite 1-603, HuaKang Plaza
109 ZhenXing Road, Futian District
ShenZhen 518031, P.R. China
Phone: 86-775-83204665 / 83204663
Fax: 86-775-83204659
Email: Eleflow@163.com

USA

Eleflow Technologies (USA)
Contact: Ted Seymour (Manager)
3291 NE 4th Avenue, Boca Raton
Florida 33431-6011
USA
Phone: 408-716-8509
Fax: 561-582-0505
Email: tedseymour@adelphia.net

United Kingdom / Europe EU

Eleflow Technologies (Distributor)
www.yoyocomponents.co.uk

Contact: John Hawkes (Sales Manager)

Yoyo Components UK Ltd
183 Borden Lane
Sittingbourne
Kent ME10 1DA
United Kingdom

Email: john.hawkes@yoyocomponents.co.uk
Phone: 00 44 (0) 203 3180873
Fax: 00 44 (0) 203 3180874

Research and Development Centre

Eleflow Technologies (R&D)
Overseas Chinese High-Tech Venture Park
12 South, Hi-Tech Park, NanShan District
ShenZhen 518057
China

Chengdu China

Eleflow Technologies (Chengdu Office)
Contact: Mr Ou Lin (Manager)
Suite A401, Qunyi Business Centre
13 ErHuaLu NanYiDuan, Chengdu
Sichuan 610041
China
Phone: 86-28-8521 3480
Fax: 86-28-8521 3480
Email: Eleflow@163.com

Thank you for accessing Eleflow Technologies product information.
More detailed product information is available upon request, please contact us.