

Part No. 2SC1971

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Part No.	2SC1971
Description	NPN EPITAXIAL PLANAR TYPE (for RF power amplifiers on VHF band Mobile radio applications)
File Size	127.93 Kbytes
Html View	1 2 3
Manufacturer	MITSUBISHI [Mitsubishi Electric Semiconductor]
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Автоматически

T-30E

PIN :
 ① BASE
 ② EMITTER (FIN)
 ③ COLLECTOR
 ④ FIN (EMITTER)

ABSOLUTE MAXIMUM RATINGS ($T_C = 25^\circ\text{C}$ 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_{CE0}	Collector to emitter voltage	$R_{BE} = \infty$	17	V
I_C	Collector current		2	A
P_C	Collector dissipation	$T_a = 25^\circ\text{C}$	1.5	W
		$T_C = 25^\circ\text{C}$	12.5	W
T_J	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55 to 150	$^\circ\text{C}$
R_{th-a}	Thermal resistance	Junction to ambient	83	$^\circ\text{C/W}$
		Junction to case	10	$^\circ\text{C/W}$

Note. Above parameters are guaranteed independently.

ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$ unless otherwise specified)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)EBO}$	Emitter to base breakdown voltage	$I_F = 5\text{mA}$, $I_C = 0$	4			V
$V_{(BR)CBO}$	Collector to base breakdown voltage	$I_C = 10\text{mA}$, $I_E = 0$	35			V
$V_{(BR)CEO}$	Collector to emitter breakdown voltage	$I_C = 50\text{mA}$, $R_{BE} = \infty$	17			V
I_{CBO}	Collector cutoff current	$V_{CB} = 25\text{V}$, $I_E = 0$			500	μA
I_{EBO}	Emitter cutoff current	$V_{EB} = 3\text{V}$, $I_C = 0$			500	μA
h_{FE}	DC forward current gain *	$V_{CE} = 10\text{V}$, $I_C = 0.1\text{A}$	10	50	180	—
P_O	Output power	$V_{CC} = 13.5\text{V}$, $P_{in} = 0.6\text{W}$, $f = 175\text{MHz}$	6	7		W
η_C	Collector efficiency		60	70		%

Note. * Pulse test, $P_w = 150\mu\text{s}$, duty = 5%.
 Above parameters, ratings, limits and conditions are subject to change.

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Part No.	Description	Html View	Manufacturer
2SC1947	NPN EPITAXIAL PLANAR TYPE for industrial use RF power amplifiers on VHF band Mobile radio applications	1 2 3	Mitsubishi Electric Semiconductor
2SC2131	NPN EPITAXIAL PLANAR TYPE for RF power amplifiers in UHF band Mobile radio applications	1 2 3	Mitsubishi Electric Semiconductor
2SC1946A	NPN EPITAXIAL PLANAR TYPE for RF power amplifiers on VHF band Mobile radio applications	1 2 3	Mitsubishi Electric Semiconductor
2SC2097	NPN EPITAXIAL PLANAR TYPE for RF power amplifiers in HF band Mobile radio applications	1 2 3	Mitsubishi Electric Semiconductor
2SC1946	NPN EPITAXIAL PLANAR TYPE for RF power amplifiers on VHF band Mobile radio applications	1 2 3	Mitsubishi Electric Semiconductor
2SC1972	NPN EPITAXIAL PLANAR TYPE for RF power amplifiers on VHF band Mobile radio applications	1 2 3	Mitsubishi Electric Semiconductor
2SC1944	NPN EPITAXIAL PLANAR TYPE for RF power amplifiers on HF band Mobile radio applications	1	Mitsubishi Electric Semiconductor

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