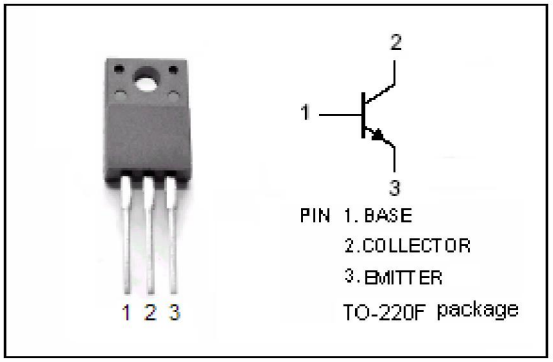
isc Silicon NPN Power Transistor 2SC5171

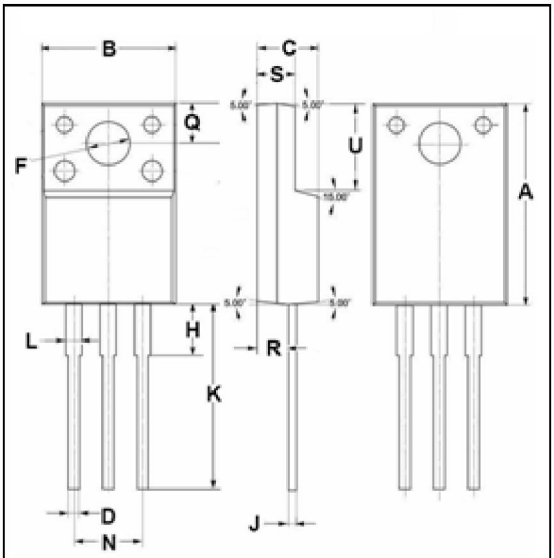


DESCRIPTION

- High Transition Frenquency : f_T=200MHz(Typ.)
- Complementary to 2SA1930

APPLICATIONS

- Power amplifier applications
- Driver stage amplifier applications



DIM	mm MIN	mm MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.80
F	3.10	3.30
H	3.70	3.90
J	0.50	0.70
K	13.4	13.6
L	1.10	1.30
N	5.00	5.20
Q	2.70	2.90
R	2.20	2.40
S	2.65	2.85
U	6.40	6.60

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	180	V
V_{CEO}	Collector-Emitter Voltage	180	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	2	A
I_B	Base Current-Continuous	1	A
P_c	Collector Power Dissipation @ T_C=25℃	20	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 10mA; I_B= 0	180			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 1.0A; I_B= 0.1A			1.0	V
$V_{BE(on)}$	Base-Emitter Voltage	I_C= 1A ; V_{CE}= 5V			1.5	V
I_{CBO}	Collector Cutoff Current	At rated Voltage			5	μA
I_{EBO}	Emitter Cutoff Current	At rated Voltage			5	μA
h_{FE-1}	DC Current Gain	I_C= 0.1A ; V_{CE}= 5V	100		320	
h_{FE-2}	DC Current Gain	I_C= 1A ; V_{CE}= 5V	40			
Cob	Collector Output Capacitance	I_E= 0 ; V_{CB}= 10V,f=1MHz		16		pF
f_T	Current-Gain—Bandwidth Product	I_C= 0.3A ; V_{CE}= 5V		200		MHz