

isc Silicon NPN Power Transistor

2SC5171

DESCRIPTION

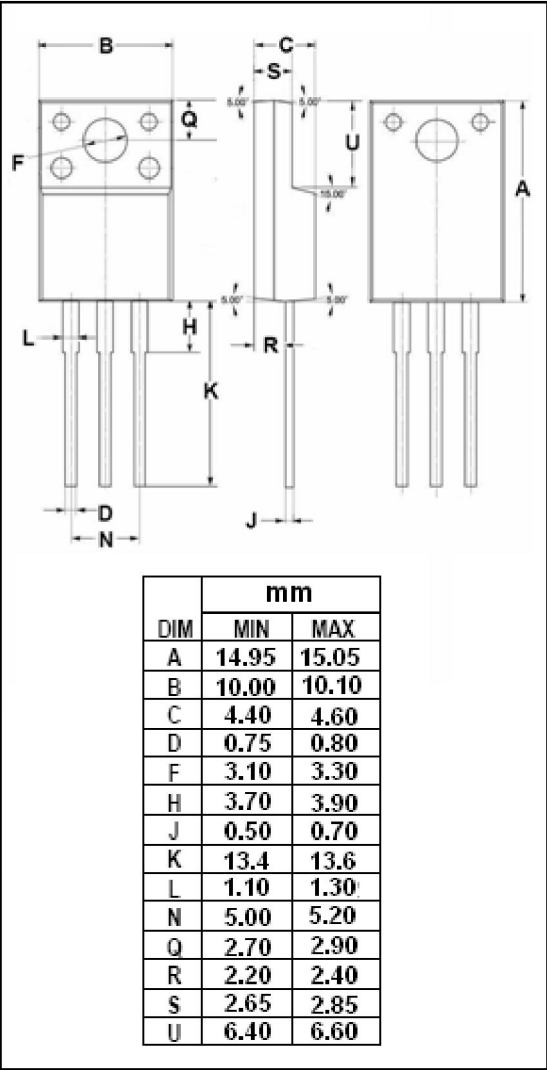
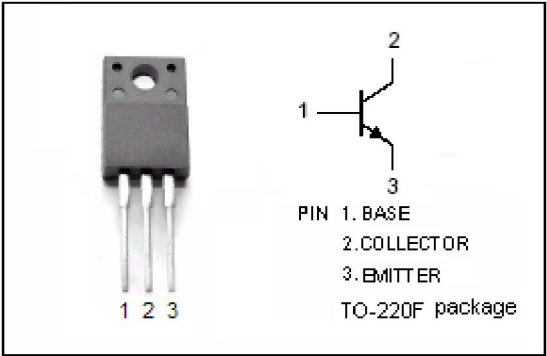
- High Transition Frenquency : $f_T=200\text{MHz(Typ.)}$
- Complementary to 2SA1930

APPLICATIONS

- Power amplifier applications
- Driver stage amplifier applications

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

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 @ $T_c=25^{\circ}\text{C}$	20	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$



isc Silicon NPN Power Transistor**2SC5171****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(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	μ A
I _{EBO}	Emitter Cutoff Current	At rated Voltage			5	μ A
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