

TO-220F Plastic-Encapsulate Transistors

2SC5171 TRANSISTOR (NPN)

FEATURES

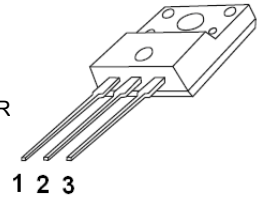
- High Transition Frequency
- Power Amplifier Applications

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

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	2	A
P _C	Collector Power Dissipation	2	W
R _{θJA}	Thermal Resistance From Junction To Ambient	62.5	°C/W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C

TO – 220F

1. BASE
2. COLLECTOR
3. EMITTER



ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100μA, I _E =0	180			V
Collector-emitter breakdown voltage	V _{(BR)CEO} *	I _C =10mA, I _B =0	180			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =1mA, I _C =0	5			V
Collector cut-off current	I _{CBO}	V _{CB} =180V, I _E =0			5	μA
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0			5	μA
DC current gain	h _{FE(1)}	V _{CE} =5V, I _C =0.1A	100		320	
	h _{FE(2)} *	V _{CE} =5V, I _C =1A	50			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =1A, I _B =100mA			1	V
Base-emitter voltage	V _{BE}	V _{CE} =5V, I _C =1A			1.5	V
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		16		pF
Transition frequency	f _T	V _{CE} =5V, I _C =300mA		200		MHz

*Pulse test