

2SC5200

NPN PLASTIC-ENCAPSULATE TRANSISTOR

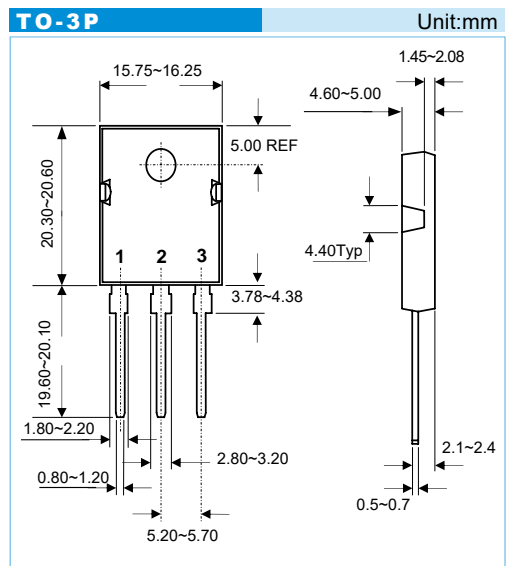
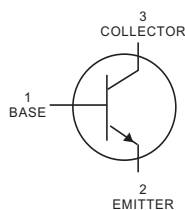
VOLTAGE	230 Volt	POWER	3.5 Watt
----------------	-----------------	--------------	-----------------

FEATURES

- High Collector Current Capability
- High Power Dissipation
- High Frequency
- High Voltage
- Complement to 2SA1943
- Lead free in compliance with EU RoHS

MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Units
Collector - Emitter Voltage	V_{CE0}	230	V
Collector - Base Voltage	V_{CB0}	230	V
Emitter - Base Voltage	V_{EB0}	5	V
Collector Current - Continuous	I_c	15	A
Collector Dissipation	P_c	3.5	W
Collector Dissipation ($T_c=25^\circ\text{C}$)	P_{CM}	150	W
Thermal resistance junction to ambient	$R_{\theta JA}$	36	$^\circ\text{C/W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55~+150	$^\circ\text{C}$

2SC5200

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	230			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=50\text{mA}, I_B=0$	230			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=230\text{V}, I_E=0$			5	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			5	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=5\text{V}, I_C=1\text{A}$	55		160	
	$h_{FE(2)}$	$V_{CE}=5\text{V}, I_C=7\text{A}$	35			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=8\text{A}, I_B=0.8\text{A}$			3	V
Base-emitter voltage	V_{BE}	$V_{CE}=5\text{V}, I_C=7\text{A}$			1.5	V
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		200		μF
Transition frequency	f_T	$V_{CE}=5\text{V}, I_C=1\text{A}$		30		MHz

CLASSIFICATION OF $h_{FE(1)}$

Rank	R	O
RANGE	55-110	80-160

2SC5200

Typical Characteristics

