

**DESCRIPTION**

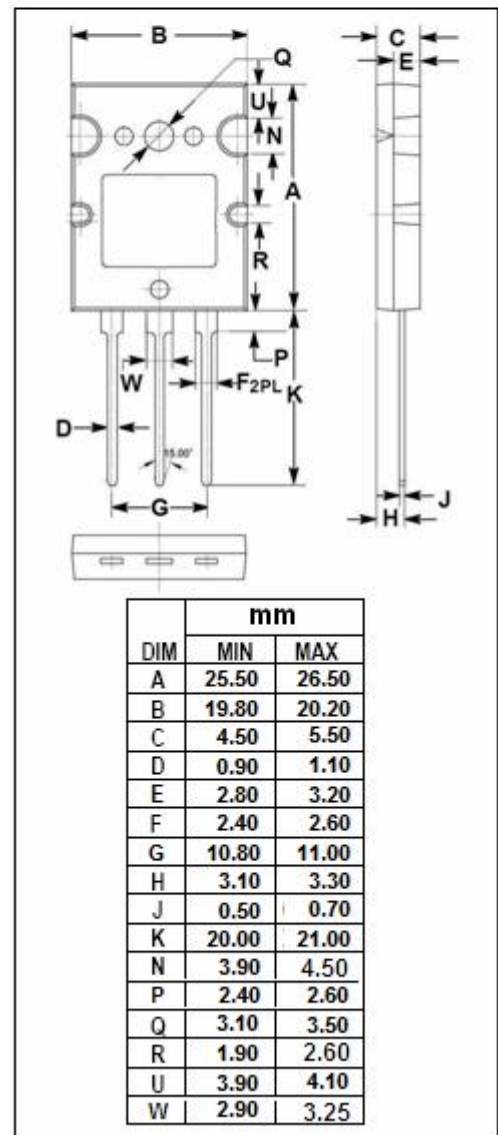
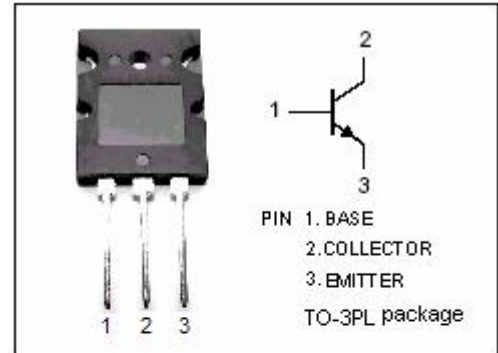
- High Current Capability
- High Power Dissipation
- High Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 230V(\text{Min})$
- Complement to Type 2SA1943

**APPLICATIONS**

- Power amplifier applications
- Recommend for 100W high fidelity audio frequency amplifier output stage applications

**ABSOLUTE MAXIMUM RATINGS(Ta=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	230	V
$V_{CEO}$	Collector-Emitter Voltage	230	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	15	A
$I_B$	Base Current-Continuous	1.5	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	150	W
$T_J$	Junction Temperature	150	°C
$T_{stg}$	Storage Temperature Range	-55~150	°C



**SPTECH Silicon NPN Power Transistor**

**2SC5200**

**ELECTRICAL CHARACTERIST**

$T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C= 50\text{mA}; I_B= 0$	230			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 8.0\text{A}; I_B= 0.8\text{A}$			3.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C= 7\text{A}; V_{CE}= 5\text{V}$			1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}= 230\text{V}; I_E= 0$			5	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}= 5\text{V}; I_C= 0$			5	$\mu\text{A}$
$h_{FE-1}$	DC Current Gain	$I_C= 1\text{A}; V_{CE}= 5\text{V}$	55		160	
$h_{FE-2}$	DC Current Gain	$I_C= 7\text{A}; V_{CE}= 5\text{V}$	35			
$C_{OB}$	Output Capacitance	$I_E=0; V_{CB}= 10\text{V}; f= 1.0\text{MHz}$		200		pF
$f_T$	Current-Gain—Bandwidth Product	$I_C=1\text{A}; V_{CE}= 5\text{V}$		30		MHz

◆  **$h_{FE-1}$  Classifications**

R	O
55-110	80-160