

Magnatec



Certificate No. FM 35235

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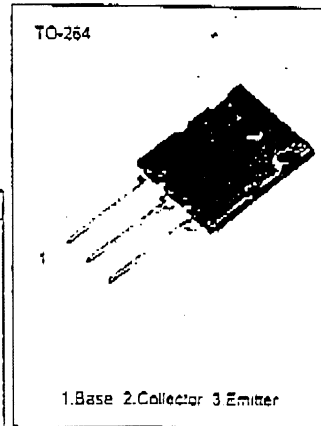
## 2SC5200 NPN EPITAXIAL SILICON TRANSISTOR

### AUDIO POWER AMPLIFIER

- High Current Capability ( $I_c=15A$ )
- High Power Dissipation
- Wide S.O.A
- Complement to 2SA1943

### ABSOLUTE MAXIMUM RATINGS ( $T_a=25^\circ C$ )

Characteristic	Symbol	Rating	Unit
Collector Base Voltage	$V_{CB0}$	230	V
Collector Emitter Voltage	$V_{CE0}$	230	V
Emitter Base Voltage	$V_{EB0}$	5	V
Collector Current	$I_c$	15	A
Base Current	$I_b$	1.5	A
Collector Dissipation ( $T_c=25^\circ C$ )	$P_c$	150	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature	$T_{stc}$	-50-150	$^\circ C$



### ELECTRICAL CHARACTERISTICS ( $T_c=25^\circ C$ )

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Base Breakdown Voltage	$BV_{CB0}$	$I_c=5mA, I_b=0$	230			V
Collector Emitter Breakdown Voltage	$BV_{CE0}$	$I_c=10mA, R_{EB}=\infty$	230			V
Emitter Base Breakdown Voltage	$BV_{EB0}$	$I_b=5mA, I_c=0$	5			V
Collector Cutoff Current	$I_{c0}$	$V_{CB}=230V, I_b=0$			5.0	$\mu A$
Emitter Cutoff Current	$I_{e0}$	$V_{EB}=5V, I_c=0$			5.0	$\mu A$
DC Current Gain	$h_{FE1}$	$V_{CE}=5V, I_c=1A$	55		160	
DC Current Gain	$h_{FE2}$	$V_{CE}=5V, I_c=7A$	35	80		
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_c=2A, I_b=0.8A$		0.4	3.0	V
Base Emitter On Voltage	$V_{BE(on)}$	$V_{CE}=5V, I_c=7A$		1.0	1.5	V
Current Gain Bandwidth Product	fT	$V_{CE}=5V, I_c=1A$		30		MHz
Output Capacitance	$C_{00}$	$V_{CE}=10V, f=1MHz$		200		pF

\* Pulse Test: PW=20 $\mu s$ 

### h<sub>FE</sub>(1) CLASSIFICATION

Classification	R	O
h <sub>FE</sub> (1)	55 - 110	50 - 160



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