

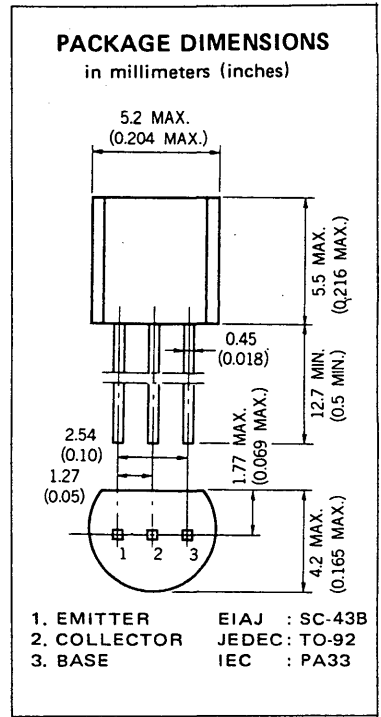
DESCRIPTION The 2SC2001 is designed for use in output stage of portable RADIO and cassette type tape recorder, general purpose applications.

FEATURES

- High total power dissipation.
 P_T : 600 mW
- High h_{FE} and low $V_{CE(sat)}$
 h_{FE} ($I_C = 100$ mA) : 200 TYP.
 $V_{CE(sat)}$ (700 mA) : 0.20 V TYP.

ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures
 Storage Temperature -55 to +150 °C
 Junction Temperature +150 °C Maximum
 Maximum Power Dissipation ($T_a = 25$ °C)
 Total Power Dissipation 600 mW
 Maximum Voltages and Currents ($T_a = 25$ °C)
 V_{CBO} Collector to Base Voltage 30 V
 V_{CEO} Collector to Emitter Voltage 25 V
 V_{EBO} Emitter to Base Voltage 5.0 V
 I_C Collector Current 700 mA
 I_B Base Current 150 mA



ELECTRICAL CHARACTERISTICS ($T_a = 25$ °C)

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
h_{FE1}^*	DC Current Gain	90	200	400	-	$V_{CE} = 1.0$ V, $I_C = 100$ mA
h_{FE2}^*	DC Current Gain	50	140		-	$V_{CE} = 1.0$ V, $I_C = 700$ mA
C_{ob}	Collector to Base Capacitance		13	25	pF	$V_{CB} = 6.0$ V, $I_E = 0$ $f = 1.0$ MHz
f_T	Gain Bandwidth Product	50	170		MHz	$V_{CE} = 6.0$ V, $I_E = -10$ mA
V_{BE}^*	Base to Emitter Voltage	600	640	700	mV	$V_{CE} = 6.0$ V, $I_C = 10$ mA
$V_{CE(sat)}^*$	Collector Saturation Voltage		0.2	0.6	V	$I_C = 700$ mA, $I_B = 70$ mA
$V_{BE(sat)}^*$	Base Saturation Voltage		0.95	1.2	V	$I_C = 700$ mA, $I_B = 70$ mA
I_{CBO}	Collector Cutoff Current			100	nA	$V_{CB} = 30$ V, $I_E = 0$
I_{EBO}	Emitter Cutoff Current			100	nA	$V_{EB} = 5.0$ V, $I_C = 0$

* Pulsed $PW \leq 350$ μ s, duty cycle ≤ 2.0 %

Classification of h_{FE1}

Rank	M	L	K
Range	90 - 180	135 - 270	200 - 400

h_{FE} Test Conditions : $V_{CE} = 1.0$ V, $I_C = 100$ mA