

DESCRIPTION The 2SC1841 is designed for use in AF amplifier, driver and low speed switching.

FEATURES

- High Voltage V_{CEO} : 120 V
- High h_{FE} h_{FE} : 600 TYP. ($V_{CE} = 6.0$ V, $I_C = 1.0$ mA)

ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures

Storage Temperature -55 to +125 °C

Junction Temperature +125 °C Maximum

Maximum Power Dissipation ($T_a = 25$ °C)

Total Power Dissipation 500 mW

Maximum Voltages and Currents ($T_a = 25$ °C)

V_{CBO} Collector to Base Voltage 120 V

V_{CEO} Collector to Emitter Voltage 120 V

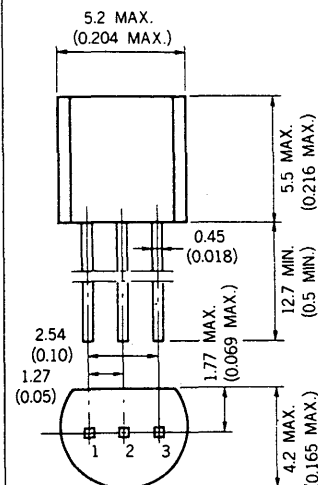
V_{EBO} Emitter to Base Voltage 5.0 V

I_C Collector Current 50 mA

I_B Base Current 10 mA

PACKAGE DIMENSIONS

in millimeters (inches)



1. EMITTER EIAJ : SC-43B
2. COLLECTOR JEDEC : TO-92
3. BASE IEC : PA33

ELECTRICAL CHARACTERISTICS ($T_a = 25$ °C)

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
h_{FE1}	DC Current Gain	150	580			$V_{CE} = 6.0$ V, $I_C = 0.1$ mA
h_{FE2}	DC Current Gain	200	600	1200		$V_{CE} = 6.0$ V, $I_C = 1.0$ mA
f_T	Gain Bandwidth Product	50	110		MHz	$V_{CE} = 6.0$ V, $I_E = -1.0$ mA
C_{ob}	Output Capacitance		1.6	2.5	pF	$V_{CB} = 30$ V, $I_E = 0$, $f = 1.0$ MHz
I_{CBO}	Collector Cutoff Current			50	nA	$V_{CB} = 120$ V, $I_E = 0$
I_{EBO}	Emitter Cutoff Current			50	nA	$V_{EB} = 5.0$ V, $I_C = 0$
V_{BE}	Base to Emitter Voltage	550	590	650	mV	$V_{CE} = 6.0$ V, $I_C = 1.0$ mA
$V_{BE(sat)}$	Base Saturation Voltage		0.73	1.0	V	$I_C = 10$ mA, $I_B = 1.0$ mA
$V_{CE(sat)}$	Collector Saturation Voltage		70	300	mV	$I_C = 10$ mA, $I_B = 1.0$ mA

Classification of h_{FE2}

Rank	P	F	E	U
Range	200 - 400	300 - 600	400 - 800	600 - 1200

h_{FE} Test Conditions : $V_{CE} = 6.0$ V, $I_C = 1.0$ mA

TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$ unless otherwise noted)

