

**DESCRIPTION** Suitable for low noise amplifier in the VHF to UHF band.

- FEATURES**
- NF 3.0 dB TYP. @f = 500 MHz
  - $G_{pe}$  15 dB TYP. @f = 500 MHz
  - $f_T$  2.0 GHz 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 . . . . . 250 mW

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

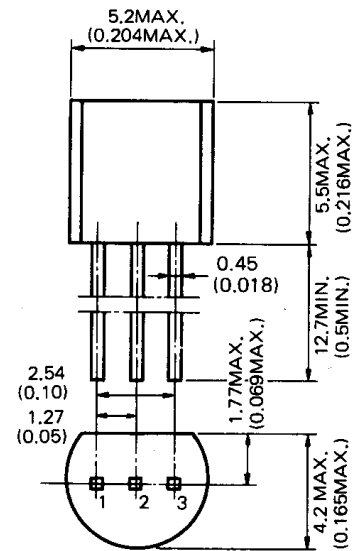
$V_{CBO}$  Collector to Base Voltage . . . . . 30 V

$V_{CEO}$  Collector to Emitter Voltage . . . . . 14 V

$V_{EBO}$  Emitter to Base Voltage . . . . . 3.0 V

$I_C$  Collector Current . . . . . 50 mA

**PACKAGE DIMENSIONS**  
in millimeters (inches)



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

**ELECTRICAL CHARACTERISTICS ( $T_a = 25$  °C)**

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
$h_{FE}$	DC Current Gain	25	80	200		$V_{CE}=10$ V, $I_C=10$ mA
$f_T$	Gain Bandwidth Product	1.5	2.0		GHz	$V_{CE}=10$ V, $I_E=10$ mA
$C_{ob}$	Output Capacitance		0.75	1.1	pF	$V_{CB}=10$ V, $I_E=0$ , $f=1.0$ MHz*
$G_{pe}$	Power Gain	13	15		dB	$V_{CE}=10$ V, $I_C=10$ mA, $f=500$ MHz
NF	Noise Figure		3.0	4.0	dB	$V_{CE}=10$ V, $I_C=3.0$ mA, $f=500$ MHz, $R_G=50$ $\Omega$
$I_{CBO}$	Collector Cutoff Current			0.1	$\mu$ A	$V_{CB}=15$ V, $I_E=0$
$I_{EBO}$	Emitter Cutoff Current			0.1	$\mu$ A	$V_{EB}=2.0$ V, $I_C=0$

\* The emitter terminal should be connected to the guard terminal of the three-terminal capacitance bridge.