

DESCRIPTION The 2SC2352 is an NPN silicon epitaxial transistor intended for use as a VHF mixer in a tuner of a TV receiver. The device features are high conversion gain and low distortion.

- FEATURES**
- Low C_{re} : 0.4 pF TYP.
 - High conversion gain. : 15 dB TYP.
 - Excellent h_{FE} linearity.

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 250 mW

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

V_{CBO} Collector to Base Voltage 30 V

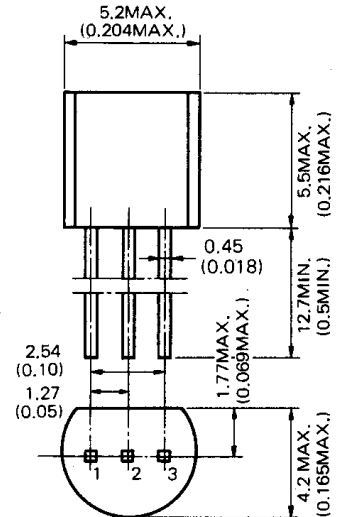
V_{CEO} Collector to Emitter Voltage 20 V

V_{EBO} Emitter to Base Voltage 4.0 V

I_C Collector Current 30 mA

I_B Base Current. 10 mA

PACKAGE DIMENSIONS
in millimeters (inches)



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

ELECTRICAL CHARACTERISTICS ($T_a = 25$ °C)

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
h_{FE}	DC Current Gain	60	100	200		$V_{CE}=10$ V, $I_C=5.0$ mA
f_T	Gain Bandwidth Product	500	850		MHz	$V_{CE}=10$ V, $I_E=-5.0$ mA
C_{re}	Feed Back Capacitance		0.4	0.7	pF	$V_{CB}=10$ V, $I_E=0$, $f=1.0$ MHz
G_c	Conversion Gain	12			dB	$V_{CE}=10$ V, $I_E=-5.0$ mA $f=200$ MHz, $f_L=258$ MHz
I_{CBO}	Collector Cutoff Current			0.1	μ A	$V_{CB}=20$ V, $I_E=0$
$V_{CE(sat)}$	Collector Saturation Voltage			0.5	V	$I_C=10$ mA, $I_B=1.0$ mA

Classification of h_{FE}

Rank	L	K
Range	60 - 120	100 - 200

h_{FE} Test Conditions: $V_{CE}=10$ V, $I_C=5.0$ mA