

2N3564

GENERAL DESCRIPTION - The 2N3564 is an NPN Silicon Transistor.

It is designed for high-frequency wide-band amplifiers and is useful in low-power, small-signal tuned RF and IF applications.

ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures

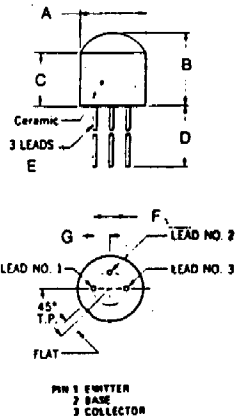
Storage Temperature	-55°C to +125°C
Operating Junction Temperature	+125°C Maximum
Lead Temperature (Soldering, 10 sec. time limit)	+260°C Maximum

Maximum Power Dissipation

Total Dissipation at 25°C Case Temperature	0.5 Watt
at 65°C Case Temperature	0.3 Watt
at 25°C Ambient Temperature	0.2 Watt

Maximum Voltages

V_{CBO}	Collector to Base Voltage	30 Volts
V_{CEO}	Collector to Emitter Voltage	15 Volts
V_{EBO}	Emitter to Base Voltage	4.0 Volts



DIM.	INCHES		
	MIN.	TYP.	MAX.
A	.192		.222
B			.240
C	.100		.120
D	.500		
E	.016		.019
F		.100	
G		.050	

ELECTRICAL CHARACTERISTICS (25°C Free Air Temperature unless otherwise noted)

Symbol	Characteristics	Min.	Typ.	Max.	Units	Test Conditions
V_{CBO}	Collector to Base Breakdown Voltage	30			Volts	$I_C = 100 \mu A$ $I_E = 0$
V_{EBO}	Emitter to Base Breakdown Voltage	4.0			Volts	$I_E = 100 \mu A$ $I_C = 0$
$V_{CEO}^{(sust)}$	Collector to Emitter Sustaining Voltage	15			Volts	$I_C = 10 \text{ mA}$ $I_B = 0$
$V_{CE}^{(sat)}$	Collector Saturation Voltage			0.3	Volts	$I_C = 20 \text{ mA}$ $I_B = 2.0 \text{ mA}$
$V_{BE}^{(sat)}$	Base Saturation Voltage			0.97	Volts	$I_C = 20 \text{ mA}$ $I_B = 2.0 \text{ mA}$
I_{CBO}	Collector Cutoff Current			80	nA	$V_{CB} = 15 \text{ V}$ $I_E = 0$
h_{FE}	DC Pulse Current Gain	20	70			$I_C = 15 \text{ mA}$ $V_{CE} = 10 \text{ V}$
h_{fe}	Low Frequency Current Gain ($f = 1 \text{ Kc}$)	20	80			$I_C = 15 \text{ mA}$ $V_{CE} = 10 \text{ V}$
h_{fe}	High Frequency Current Gain ($f = 100 \text{ mc}$)	4.0	7.5			$I_C = 15 \text{ mA}$ $V_{CE} = 10 \text{ V}$
r_b'	Real Part of h_{ie} ($f = 350 \text{ mc}$)		30		ohms	$I_C = 15 \text{ mA}$ $V_{CE} = 10 \text{ V}$
C_{obo}	Open Circuit Output Capacitance		2.5	3.5	pf	$V_{CB} = 10 \text{ V}$ $I_E = 0$