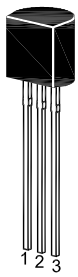
ST 2SB564

PNP Silicon Epitaxial Planar Transistor
for use in driver and output stages of audio frequency amplifiers.

The transistor is subdivided into three groups O, Y and G according to its DC current gain.

On special request, these transistors can be manufactured in different pin configurations.



1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

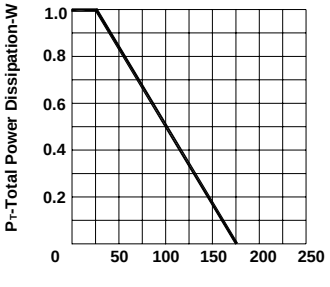
Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	30	V
Collector Emitter Voltage	$-V_{CEO}$	25	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	1	A
Power Dissipation	P_{tot}	800	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

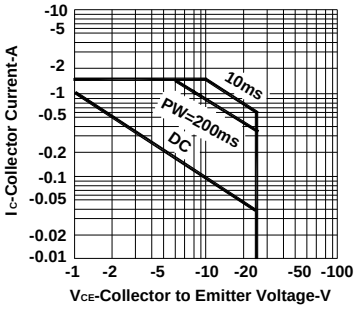
Characteristics at T_a = 25 °C

Parameter		Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE}$ = 1 V, $-I_C$ = 100 mA	Current Gain Group O	h_{FE}	70	-	140	-
	Y	h_{FE}	120	-	240	-
	G	h_{FE}	200	-	400	-
Collector Base Cutoff Current at $-V_{CB}$ = 30 V		$-I_{CBO}$	-	-	100	nA
Collector Base Breakdown Voltage at $-I_C$ = 100 µA		$-V_{(BR)CBO}$	30	-	-	V
Collector Emitter Breakdown Voltage at $-I_C$ = 10 mA		$-V_{(BR)CEO}$	25	-	-	V
Emitter Base Breakdown Voltage at $-I_E$ = 100 µA		$-V_{(BR)EBO}$	5	-	-	V
Collector Emitter Saturation Voltage at $-I_C$ = 1 A, $-I_B$ = 100 mA		$-V_{CE(sat)}$	-	-	0.5	V
Base Emitter Saturation Voltage at $-I_C$ = 1 A, $-I_B$ = 100 mA		$-V_{BE(sat)}$	-	-	1.2	V
Gain Bandwidth Product at $-V_{CE}$ = 6 V, $-I_E$ = 10 mA		f_T	-	110	-	MHz
Collector Base Capacitance at $-V_{CB}$ = 6 V, f = 1 MHz		C_{ob}	-	18	-	pF

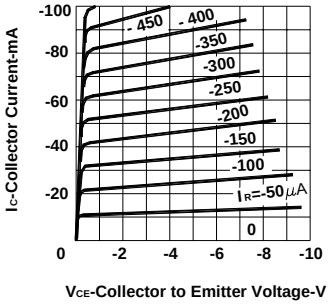
TOTAL POWER DISSIPATION vs.
AMBIENT TEMPERATURE



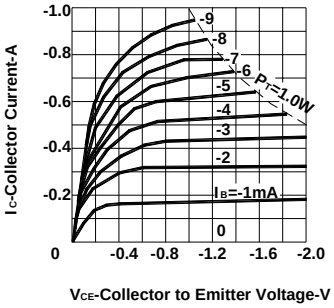
SAFE OPERATING AREAS
(TRANSIENT THERMAL RESISTANCE)



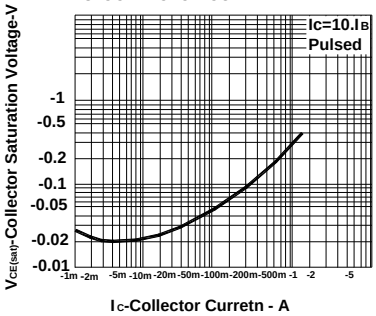
COLLECTOR CURRENT vs.
COLLECTOR TO EMITTER VOLTAGE



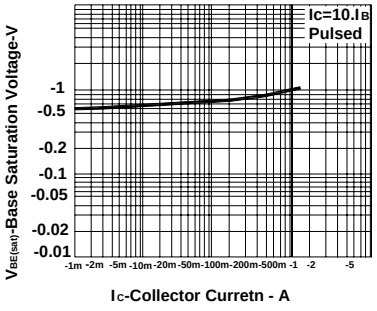
COLLECTOR CURRENT vs.
COLLECTOR TO EMITTER VOLTAGE



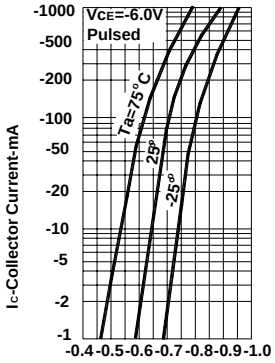
COLLECTOR SATURATION VOLTAGE
vs. COLLECTOR CURRENT



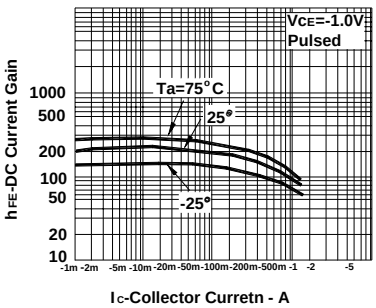
BASE SATURATION VOLTAGE
vs. COLLECTOR CURRENT



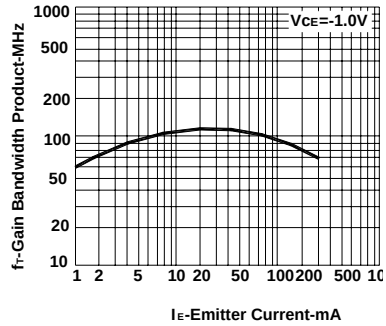
COLLECTOR CURRENT vs.
BASE TO EMITTER VOLTAGE



DC CURRENT GAIN vs.
COLLECTOR CURRENT



GAIN BANDWIDTH PRODUCT vs.
EMITTER CURRENT



COLLECTOR TO BASE CAPACITANCE vs.
COLLECTOR TO BASE VOLTAGE