

2SA952 PNP Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

The transistor is subdivided into three group, M, L and K 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 ($T_a = 25\text{ }^\circ\text{C}$)

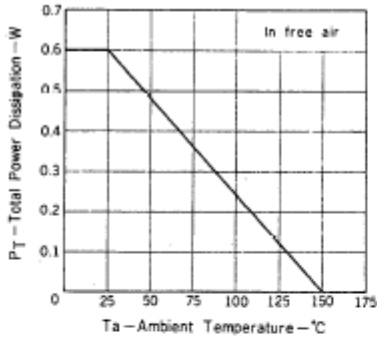
Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CB0}$	30	V
Collector Emitter Voltage	$-V_{CEO}$	25	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	700	mA
Base Current	$-I_B$	150	mA
Power Dissipation	P_{tot}	600	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_s	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

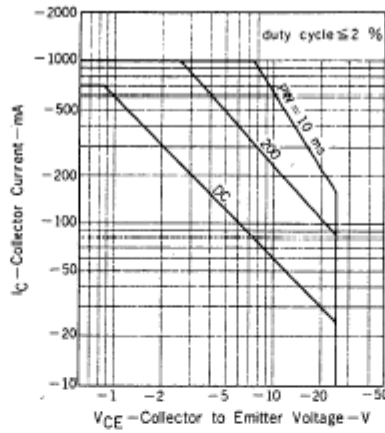
Parameter	Symbol	Min.	Max.	Unit	
DC Current Gain at $-V_{CE} = 1\text{ V}$, $-I_C = 100\text{ mA}$ at $-V_{CE} = 1\text{ V}$, $-I_C = 700\text{ mA}$	Current Gain Group M L K	h_{FE}	90	180	-
		h_{FE}	135	270	-
		h_{FE}	200	400	-
		h_{FE}	50	-	-
Collector Base Cutoff Current at $-V_{CB} = 30\text{ V}$	$-I_{CB0}$	-	100	nA	
Emitter Base Cutoff Current at $-V_{EB} = 5\text{ V}$	$-I_{EBO}$	-	100	nA	
Collector Emitter Saturation Voltage at $-I_C = 700\text{ mA}$, $-I_B = 70\text{ mA}$	$-V_{CE(sat)}$	-	0.6	V	
Base Emitter Saturation Voltage at $-I_C = 700\text{ mA}$, $-I_B = 70\text{ mA}$	$-V_{BE(sat)}$	-	1.2	V	
Base Emitter Voltage at $-V_{CE} = 6\text{ V}$, $-I_C = 10\text{ mA}$	$-V_{BE}$	0.6	0.7	V	
Gain Bandwidth Product at $-V_{CE} = 6\text{ V}$, $-I_E = 10\text{ mA}$	f_T	50	-	MHz	
Collector to Base Capacitance at $-V_{CB} = 6\text{ V}$, $f = 1\text{ MHz}$	C_{OB}	-	40	pF	



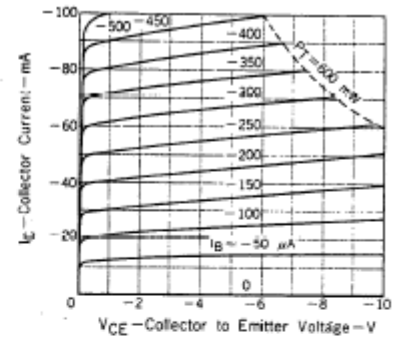
TOTAL POWER DISSIPATION
vs. AMBIENT TEMPERATURE



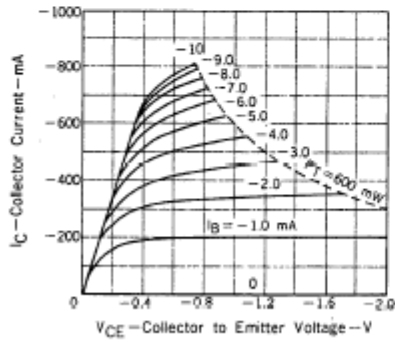
SAFE OPERATING AREAS
(TRANSIENT THERMAL RESISTANCE)



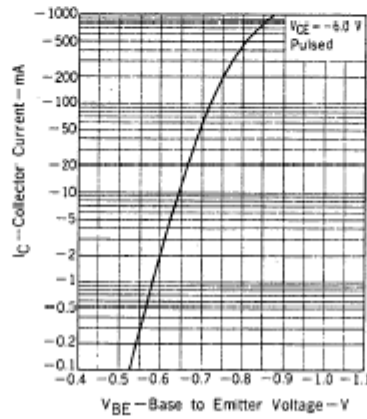
COLLECTOR CURRENT vs.
COLLECTOR TO EMITTER VOLTAGE



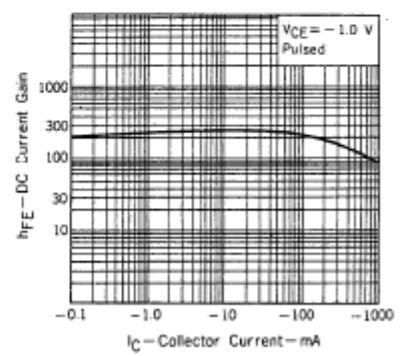
COLLECTOR CURRENT vs.
COLLECTOR TO EMITTER VOLTAGE



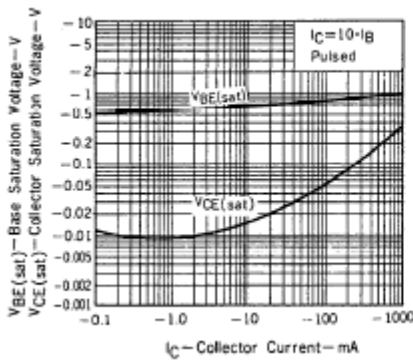
COLLECTOR CURRENT vs.
BASE TO EMITTER VOLTAGE



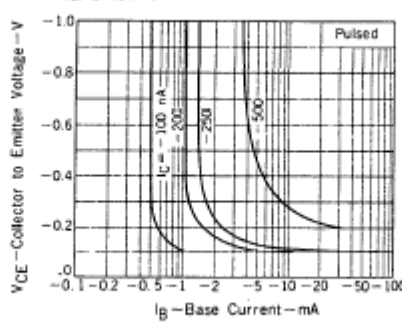
DC CURRENT GAIN vs.
COLLECTOR CURRENT



BASE AND COLLECTOR SATURATION
VOLTAGE vs. COLLECTOR CURRENT



COLLECTOR TO EMITTER VOLTAGE
vs. BASE CURRENT



GAIN BANDWIDTH PRODUCT
vs. EMITTER CURRENT

