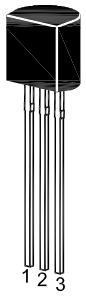
2SA952

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 °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	$-I_C$	700	mA
Base Current	$-I_B$	150	mA
Power Dissipation	P_{tot}	600	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.	Max.	Unit
DC Current Gain					
at $-V_{CE}$ = 1 V, $-I_C$ = 100 mA	Current Gain Group M	h_{FE}	90	180	-
	L	h_{FE}	135	270	-
	K	h_{FE}	200	400	-
at $-V_{CE}$ = 1 V, $-I_C$ = 700 mA		h_{FE}	50	-	-
Collector Base Cutoff Current at $-V_{CB}$ = 30 V		$-I_{CBO}$	-	100	nA
Emitter Base Cutoff Current at $-V_{EB}$ = 5 V		$-I_{EBO}$	-	100	nA
Collector Emitter Saturation Voltage at $-I_C$ = 700 mA, $-I_B$ = 70 mA		$-V_{CE(sat)}$	-	0.6	V
Base Emitter Saturation Voltage at $-I_C$ = 700 mA, $-I_B$ = 70 mA		$-V_{BE(sat)}$	-	1.2	V
Base Emitter Voltage at $-V_{CE}$ = 6 V, $-I_C$ = 10 mA		$-V_{BE}$	0.6	0.7	V
Gain Bandwidth Product at $-V_{CE}$ = 6 V, $-I_E$ = 10 mA		f_T	50	-	MHz
Collector to Base Capacitance at $-V_{CB}$ = 6 V, f = 1 MHz		C_{OB}	-	40	pF

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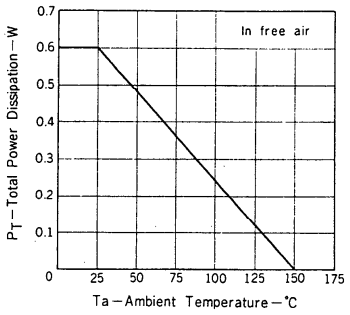
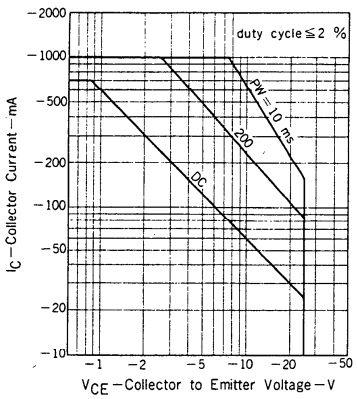
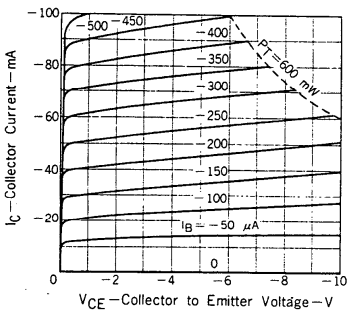
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



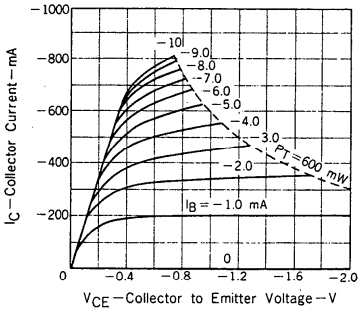
SAFE OPERATING AREAS (TRANSIENT THERMAL RESISTANCE)



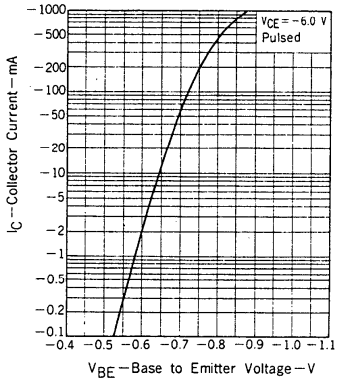
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



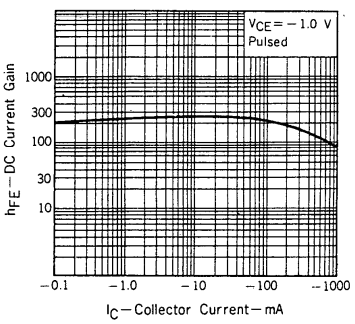
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



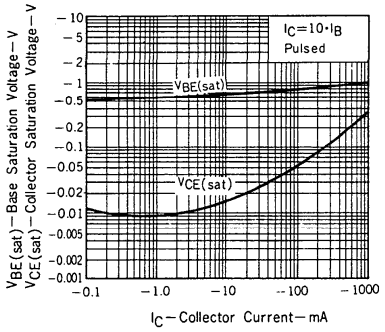
COLLECTOR CURRENT vs. BASE TO EMITTER VOLTAGE



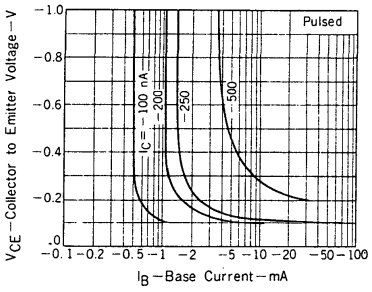
DC CURRENT GAIN vs. COLLECTOR CURRENT



BASE AND COLLECTOR SATURATION VOLTAGE vs. COLLECTOR CURRENT



COLLECTOR TO EMITTER VOLTAGE vs. BASE CURRENT



GAIN BANDWIDTH PRODUCT vs. EMITTER CURRENT