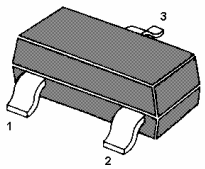
MMBTSB624

PNP Silicon Epitaxial Planar Transistor

For use in small type equipments, especially recommended or hybrid circuit and other applications

The transistor is subdivided into five groups A, B, C, D and E, according to its DC current gain.



1.BASE 2.EMITTER 3.COLLECTOR

SOT-23 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
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	- 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	A	h_{FE}	110	-	180	-
	B	h_{FE}	135	-	220	-
	C	h_{FE}	170	-	270	-
	D	h_{FE}	200	-	320	-
	E	h_{FE}	250	-	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 Base Breakdown Voltage at $-I_C$ = 100 µA		$-V_{(BR)CBO}$	30	-	-	V
Collector Emitter Breakdown Voltage at $-I_C$ = 1 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 $-I_C$ = 700 mA, $-I_B$ = 70 mA		$-V_{CE(sat)}$	-	-	0.6	V
Base Emitter On Voltage at $-V_{CE}$ = 6 V , $-I_C$ = 10 mA		$-V_{BE(on)}$	0.6	-	0.7	V
Output Capacitance at $-V_{CB}$ = 6 V, I_E = 0, f = 1 MHz		C_{ob}	-	17	-	pF
Transition Frequency at $-V_{CE}$ = 6 V, $-I_C$ = 10 mA		f_T	-	160	-	MHz

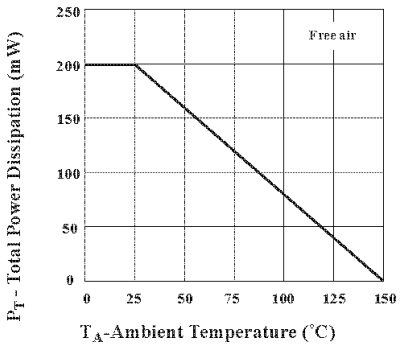


Fig.1 TOTAL POWER DISSIPATION VS. AMBIENT TEMPERATURE

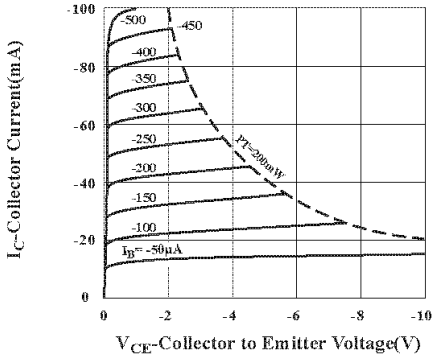


Fig.2 COLLECTOR CURRENT VS. COLLECTOR TO EMITTER VOLTAGE

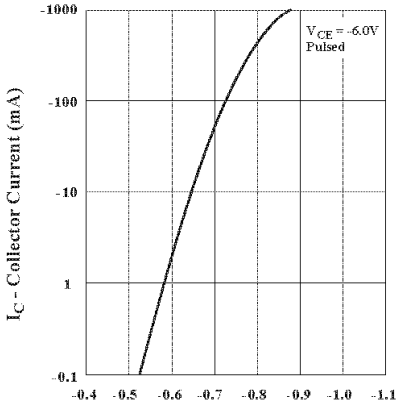


Fig.3 COLLECTOR CURRENT VS. BASE TO EMITTER VOLTAGE

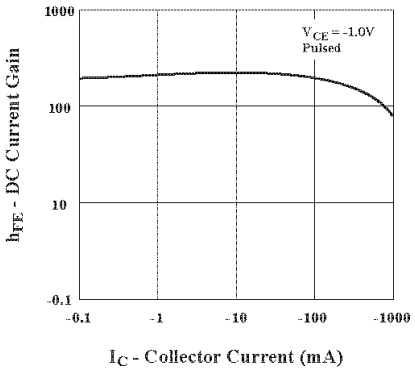


Fig.4 DC CURRENT GAIN VS. COLLECTOR CURRENT

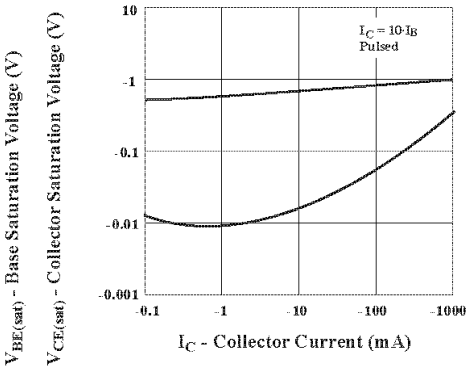


Fig.5 BASE AND COLLECTOR SATURATION VOLTAGE VS. COLLECTOR CURRENT

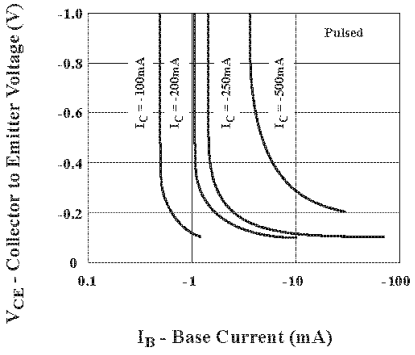


Fig.6 COLLECTOR TO EMITTER VOLTAGE VS. BASE CURRENT