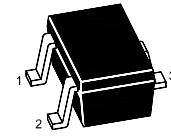


MMBTSA1980W

PNP Silicon Epitaxial Planar Transistor

for general small signal amplifier applications.

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



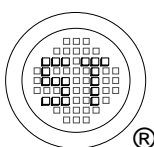
1.Base 2.Emitter 3.Collector
SOT-323 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	$-V_{\text{CBO}}$	50	V
Collector-Emitter Voltage	$-V_{\text{CEO}}$	50	V
Emitter-Base Voltage	$-V_{\text{EBO}}$	5	V
Collector Current	$-I_{\text{C}}$	150	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_{j}	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $-V_{\text{CE}} = 6\text{ V}$, $-I_{\text{C}} = 2\text{ mA}$ Current Gain Group	O	70	140	-
	Y	120	240	-
	G	200	400	-
	L	300	700	-
Collector Base Cutoff Current at $-V_{\text{CB}} = 50\text{ V}$	$-I_{\text{CBO}}$	-	100	nA
Emitter Base Cutoff Current at $-V_{\text{EB}} = 5\text{ V}$	$-I_{\text{EBO}}$	-	100	nA
Collector Base Breakdown Voltage at $-I_{\text{C}} = 100\ \mu\text{A}$	$-V_{(\text{BR})\text{CBO}}$	50	-	V
Collector Emitter Breakdown Voltage at $-I_{\text{C}} = 1\text{ mA}$	$-V_{(\text{BR})\text{CEO}}$	50	-	V
Emitter Base Breakdown Voltage at $-I_{\text{E}} = 10\ \mu\text{A}$	$-V_{(\text{BR})\text{EBO}}$	5	-	V
Collector Emitter Saturation Voltage at $-I_{\text{C}} = 100\text{ mA}$, $-I_{\text{B}} = 10\text{ mA}$	$-V_{\text{CE}(\text{sat})}$	-	0.3	V
Transition Frequency at $-V_{\text{CE}} = 10\text{ V}$, $-I_{\text{C}} = 1\text{ mA}$	f_{T}	80	-	MHz
Collector Output Capacitance at $-V_{\text{CB}} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	7	pF



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Fig. 1 P_C-T_a

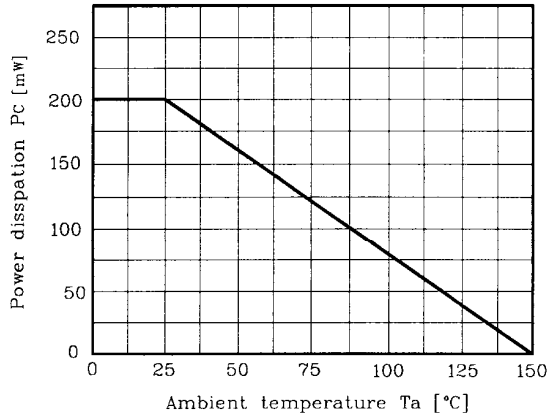


Fig. 2 I_C-V_{BE}

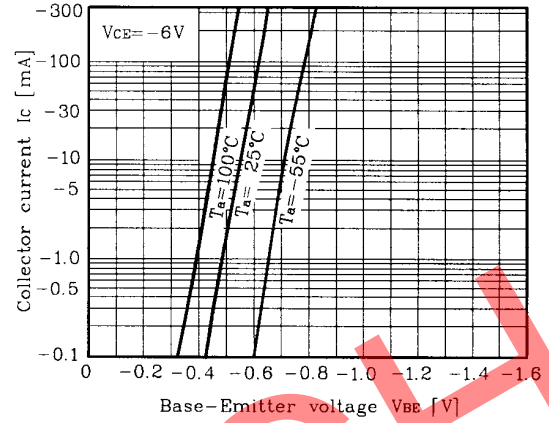


Fig. 3 I_C-V_{CE}

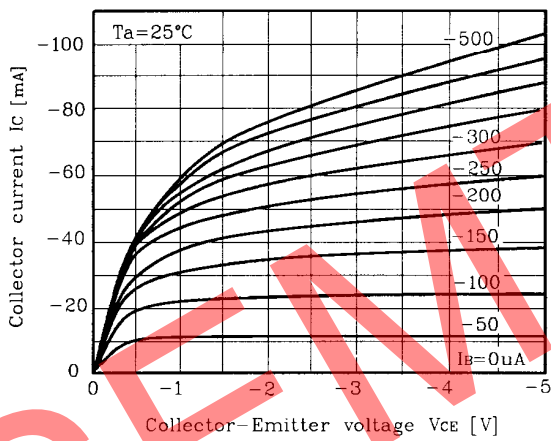


Fig. 4 $h_{FE}-I_C$

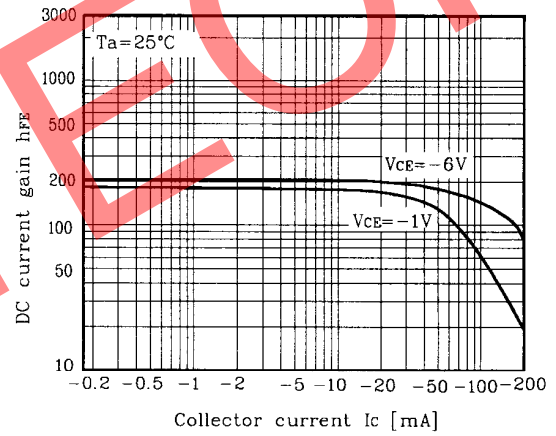


Fig. 5 $V_{CE(sat)}-I_C$

