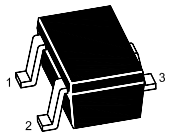
MMBT4403W

PNP Silicon General Purpose Transistor



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

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	40	V
Collector Emitter Voltage	$-V_{CEO}$	40	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	600	mA
Total Power Dissipation	P_{tot}	200	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, $-I_C$ = 0.1 mA at $-V_{CE}$ = 1 V, $-I_C$ = 1 mA at $-V_{CE}$ = 1 V, $-I_C$ = 10 mA at $-V_{CE}$ = 2 V, $-I_C$ = 150 mA at $-V_{CE}$ = 2 V, $-I_C$ = 500 mA	 h_{FE} h_{FE} h_{FE} h_{FE} h_{FE}	 30 60 100 100 20	 - - - 300 -	 - - - - -
Collector Cutoff Current at $-V_{CB}$ = 35 V	$-I_{CBO}$	-	0.1	µA
Base Cutoff Current at $-V_{EB}$ = 5 V	$-I_{EBO}$	-	0.1	µA
Collector Base Breakdown Voltage at $-I_C$ = 0.1 mA	$-V_{(BR)CBO}$	40	-	V
Collector Emitter Breakdown Voltage at $-I_C$ = 1 mA	$-V_{(BR)CEO}$	40	-	V
Emitter Base Breakdown Voltage at $-I_E$ = 0.1 mA	$-V_{(BR)EBO}$	5	-	V
Collector Emitter Saturation Voltage at $-I_C$ = 150 mA, $-I_B$ = 15 mA at $-I_C$ = 500 mA, $-I_B$ = 50 mA	$-V_{CEsat}$	- -	0.4 0.75	V
Base Emitter Saturation Voltage at $-I_C$ = 150 mA, $-I_B$ = 15 mA at $-I_C$ = 500 mA, $-I_B$ = 50 mA	$-V_{BEsat}$	- -	0.95 1.3	V
Current Gain Bandwidth Product at $-V_{CE}$ = 10 V, $-I_C$ = 20 mA, f = 100 MHz	f_T	200	-	MHz
Collector Base Capacitance at $-V_{CB}$ = 10 V, $-I_E$ = 0, f = 1 MHz	C_{cb}	-	8.5	pF

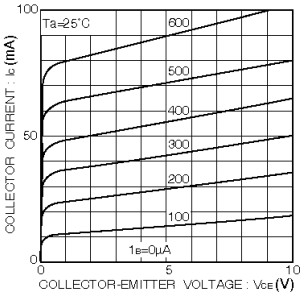


Fig.1 Grounded emitter output characteristics

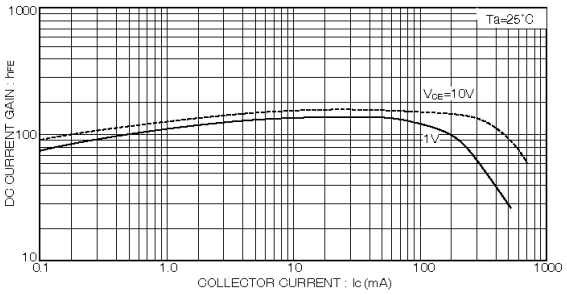


Fig.3 DC current gain vs. collector current (I)

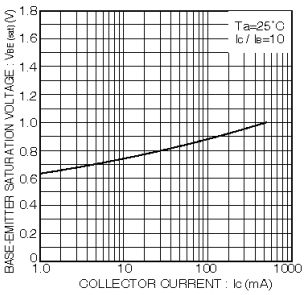


Fig.2 Base-emitter saturation voltage vs. collector current

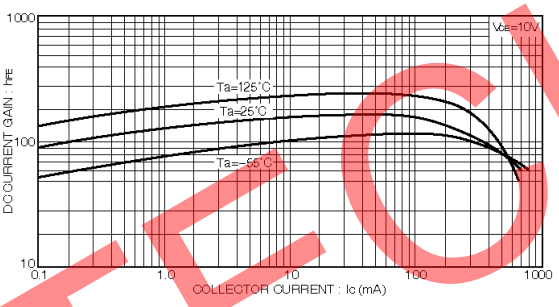


Fig.4 DC current gain vs. collector current (II)

Fig.5 AC current gain vs. collector current

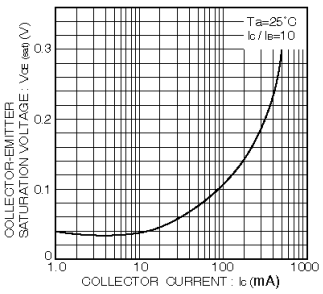


Fig.6 Collector-emitter saturation voltage vs. collector current