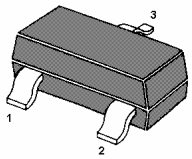
MMBTSA1505

PNP Silicon Epitaxial Planar Transistor

For switching and general purpose applications.

The transistor is subdivided into three groups O, Y and GR, according to its DC current gain.



1. Base 2. Emitter 3. Collector

SOT-23 Plastic Package

Features

Excellent h_{FE} linearity:

h_{FE}=25(min) at V_{CE}=-6V, I_C=-400mA

Absolute Maximum Ratings (T_a = 25 °C)

	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	35	V
Collector Emitter Voltage	$-V_{CEO}$	30	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	500	mA
Base Current	$-I_B$	50	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_{amb}=25 °C

		Symbol	Min.	Typ.	Max.	Unit
DC Current Gain						
at $-V_{CE}$=1V, $-I_C$=100mA						
Current Gain Group	O	h_{FE}	70	-	140	-
	Y	h_{FE}	120	-	240	-
	GR	h_{FE}	200	-	400	-
at $-V_{CE}$=6V, $-I_C$=400mA	O	h_{FE}	25	-	-	-
	Y	h_{FE}	40	-	-	-
Collector Cutoff Current						
at $-V_{CB}$=35V		$-I_{CBO}$	-	-	0.1	µA
Emitter Cutoff Current						
at $-V_{EB}$=5V		$-I_{EBO}$	-	-	0.1	µA
Collector Saturation Voltage						
at $-I_C$=100mA, $-I_B$=10mA		$-V_{CE(sat)}$	-	-	0.25	V
Base Emitter Voltage						
at $-V_{CE}$=1V, $-I_C$=100mA		$-V_{BE}$	-	-	1	V
Transition Frequency						
at $-V_{CE}$=6V, $-I_C$=20mA		f_T	-	200	-	MHz
Collector Output Capacitance						
at $-V_{CB}$=6V, f=1MHz		C_{ob}	-	13	-	pF

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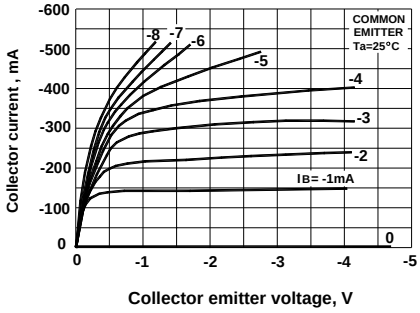
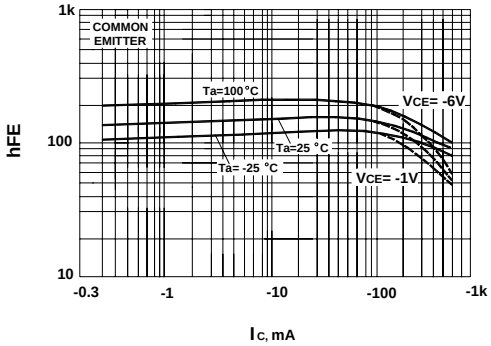
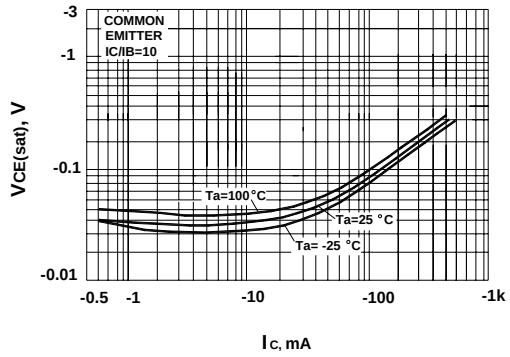
I_C - V_{CE}(LOW VOLTAGE REGION)



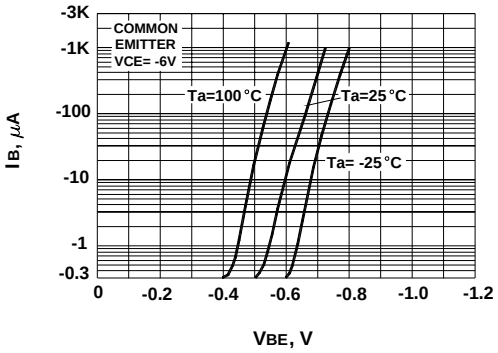
hFE - I_C



$V_{CE(sat)}$ - I_C



I_B - V_{BE}



P_C - Ta