

ELECTRICAL CHARACTERISTICS (@TA=25°C unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
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OFF CHARACTERISTICS

Collector-Emitter Breakdown Voltage ⁽¹⁾ ($I_C = 1.0\text{mA}$, $I_B = 0$)	$V_{(BR)CEO}$	140	-	Vdc
Collector-Base Breakdown Voltage ($I_C = 100\mu\text{A}$, $I_E = 0$)	$V_{(BR)CBO}$	160	-	Vdc
Emitter-Base Breakdown Voltage ($I_E = 10\mu\text{A}$, $I_C = 0$)	$V_{(BR)EBO}$	6.0	-	Vdc
Collector Cutoff Current ($V_{CB} = 100\text{Vdc}$, $I_E = 0$) ($V_{CB} = 100\text{Vdc}$, $I_E = 0$, $T_A = 100^\circ\text{C}$)	I_{CBO}	-	100	nA uA
Emitter Cutoff Current ($V_{EB} = 4.0\text{Vdc}$, $I_C = 0$)	I_{EBO}	-	50	nA

ON CHARACTERISTICS

DC Current Gain ($I_C = 1.0\text{mA}$, $V_{CE} = 5.0\text{Vdc}$) ($I_C = 10\text{mA}$, $V_{CE} = 5.0\text{Vdc}$) ($I_C = 50\text{mA}$, $V_{CE} = 5.0\text{Vdc}$)	h_{FE}	60 60 20	- 250 -	-
Collector-Emitter Saturation Voltage ($I_C = 10\text{mA}$, $I_B = 1.0\text{mA}$) ($I_C = 50\text{mA}$, $I_B = 5.0\text{mA}$)	$V_{CE(sat)}$	- -	0.15 0.25	Vdc
Base-Emitter Saturation Voltage ($I_C = 10\text{mA}$, $I_B = 1.0\text{mA}$) ($I_C = 50\text{mA}$, $I_B = 5.0\text{mA}$)	$V_{BE(sat)}$	- -	1.0 1.2	Vdc

Note: Pulse Test : Pulse Width = 300mS, Duty Cycle = 2.0%

RATING AND CHARACTERISTICS CURVES (MMBT5550)

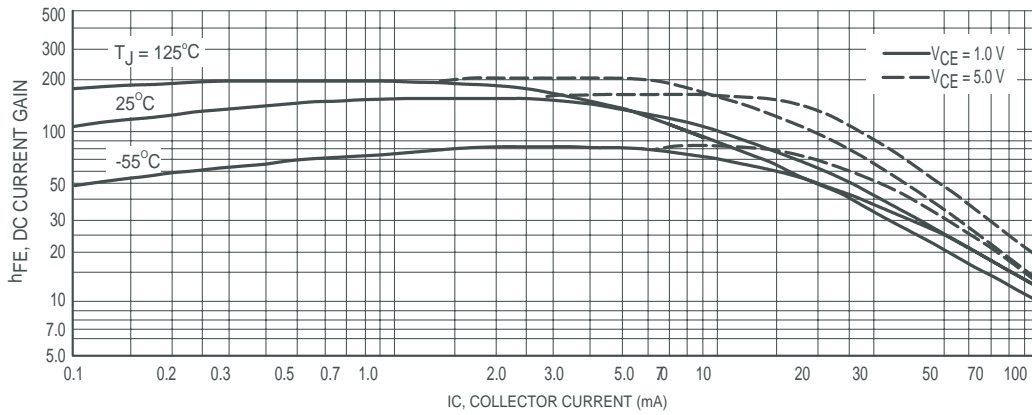


Figure 1. DC Current Gain

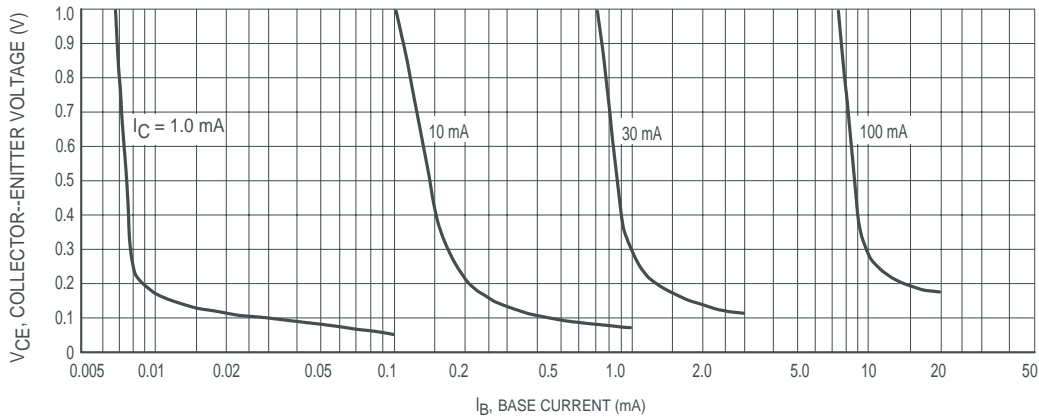


Figure 2. Collector Saturation Region

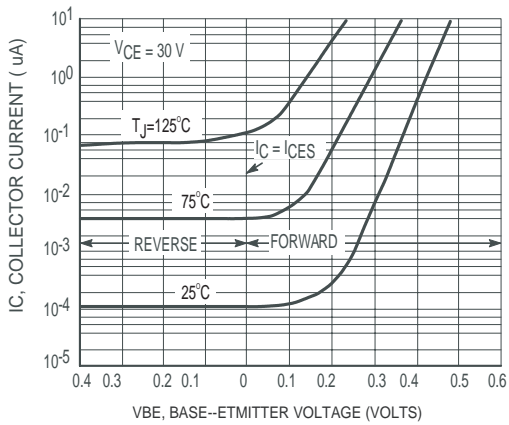


Figure 3. Collector Cut-Off Region

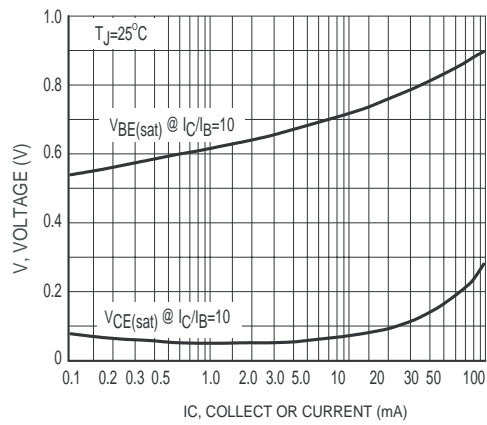


Figure 4. "On" Voltages

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