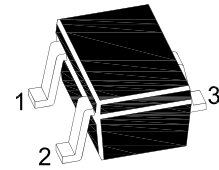


# MMBT8550E

## PNP Silicon Epitaxial Planar Transistor

for switching and amplifier applications



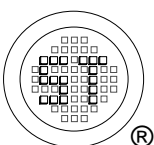
1.Base 2.Emitter 3.Collector  
SOT-523 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Emitter Voltage	$-V_{CEO}$	25	V
Collector Base Voltage	$-V_{CBO}$	40	V
Emitter Base Voltage	$-V_{EBO}$	6	V
Collector Current	$-I_C$	600	mA
Power Dissipation	$P_{tot}$	150	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{Stg}$	- 55 to + 150	$^\circ\text{C}$

### Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE} = 1\text{ V}$ , $-I_C = 100\text{ mA}$	MMBT8550CE $h_{FE}$	100	-	250	-
	MMBT8550DE $h_{FE}$	160	-	400	-
	$h_{FE}$	40	-	-	-
at $-V_{CE} = 1\text{ V}$ , $-I_C = 500\text{ mA}$	$h_{FE}$	40	-	-	-
Collector Cutoff Current at $-V_{CB} = 35\text{ V}$	$-I_{CBO}$	-	-	100	nA
Collector Saturation Voltage at $-I_C = 500\text{ mA}$ , $-I_B = 50\text{ mA}$	$-V_{CE(sat)}$	-	-	0.5	V
Base Saturation Voltage at $-I_C = 500\text{ mA}$ , $-I_B = 50\text{ mA}$	$-V_{BE(sat)}$	-	-	1.2	V
Collector Emitter Breakdown Voltage at $-I_C = 2\text{ mA}$	$-V_{(BR)CEO}$	25	-	-	V
Collector Base Breakdown Voltage at $-I_C = 10\text{ }\mu\text{A}$	$-V_{(BR)CBO}$	40	-	-	V
Emitter Base Breakdown Voltage at $-I_E = 100\text{ }\mu\text{A}$	$-V_{(BR)EBO}$	6	-	-	V
Gain Bandwidth Product at $-V_{CE} = 5\text{ V}$ , $-I_C = 10\text{ mA}$ , $f = 50\text{ MHz}$	$f_T$	-	100	-	MHz
Collector Base Capacitance at $-V_{CB} = 10\text{ V}$ , $f = 1\text{ MHz}$	$C_{CBO}$	-	12	-	pF

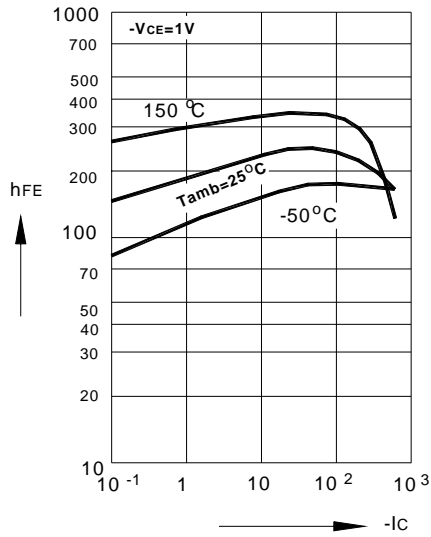


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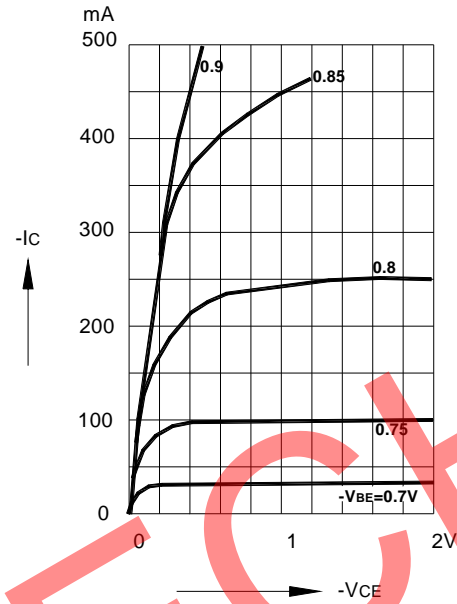


# MMBT8550E

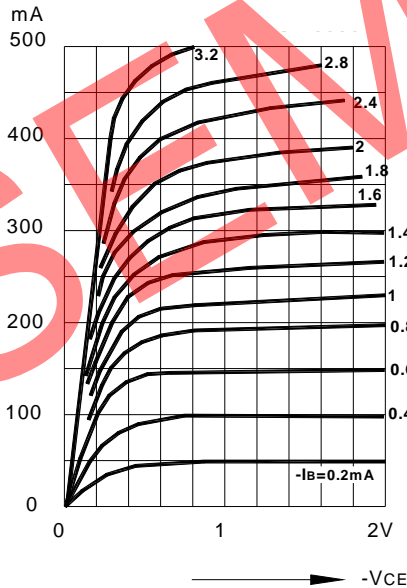
**DC current gain versus collector current**



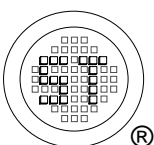
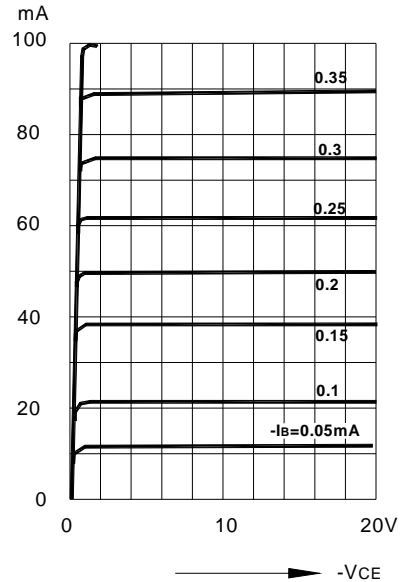
**Common emitter collector characteristics**



**Common emitter collector characteristics**



**Common emitter collector characteristics**



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