

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

- Power dissipation

## MARKING

Product	Marking Code
M8550	Y21

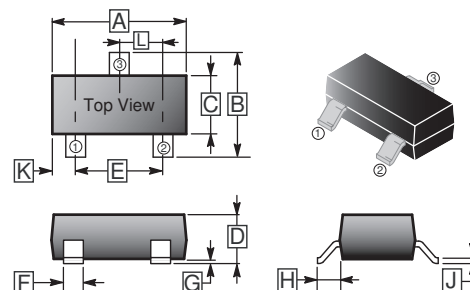
## CLASSIFICATION OF $h_{FE(2)}$

Product-Rank	M8550-L	M8550-H
Range	85-200	200-300

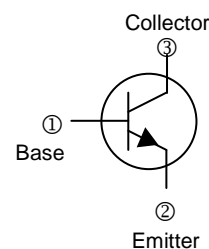
## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7' inch

## SOT-23



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.04	G	-	0.18
B	2.10	2.80	H	0.40	0.60
C	1.20	1.60	J	0.08	0.20
D	0.89	1.40	K	0.6 REF.	
E	1.78	2.04	L	0.85	1.15
F	0.30	0.50			



## MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector - Base Voltage	$V_{CB0}$	-40	V
Collector - Emitter Voltage	$V_{CEO}$	-25	V
Emitter - Base Voltage	$V_{EBO}$	-6	V
Collector Current - Continuous	$I_C$	-0.8	A
Collector Power Dissipation	$P_C$	0.2	W
Junction, Storage Temperature	$T_J, T_{STG}$	150, -55~150	$^\circ\text{C}$

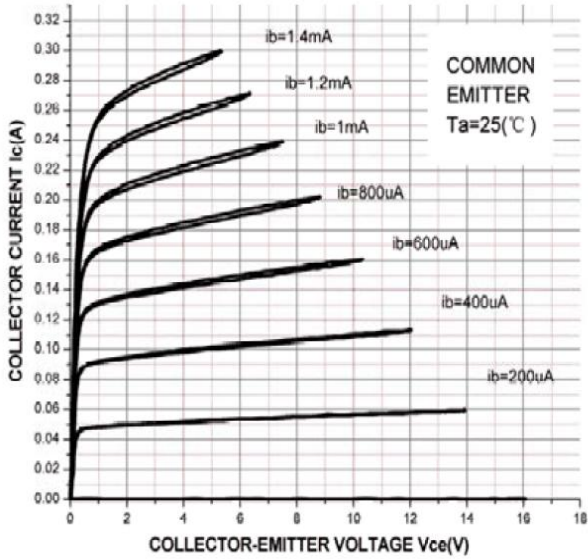
## ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-40	-	-	V	$I_C = -100\mu\text{A}, I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}^*$	-25	-	-	V	$I_C = -1\text{mA}, I_B = 0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-6	-	-	V	$I_E = -100\mu\text{A}, I_C = 0$
Collector Cut-Off Current	$I_{CBO}$	-	-	-0.1	$\mu\text{A}$	$V_{CB} = -35\text{V}, I_E = 0$
Emitter Cut-Off Current	$I_{CEO}$	-	-	-0.1	$\mu\text{A}$	$V_{CE} = -20\text{V}, I_C = 0$
DC Current Gain	$h_{FE(1)}$	45	-	-		$V_{CE} = -1\text{V}, I_C = -5\text{mA}$
	$h_{FE(2)}$	80	-	300		$V_{CE} = -1\text{V}, I_C = -100\text{mA}$
	$h_{FE(3)}$	40	-	-		$V_{CE} = -1\text{V}, I_C = -800\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-0.5	V	$I_C = -800\text{mA}, I_B = -80\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	-	-	-1.2	V	$I_C = -800\text{mA}, I_B = -80\text{mA}$
Transition frequency	$f_T$	150	-	-	MHz	$V_{CE} = -6\text{V}, I_C = -20\text{mA}, f = 30\text{MHz}$

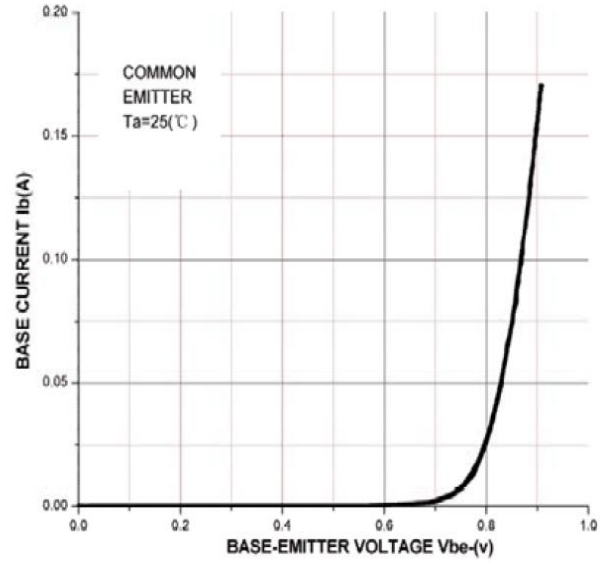
\*Pulse test : pulse width  $\leq 300\mu\text{s}$ , duty cycle  $\leq 2\%$ .

**CHARACTERISTIC CURVES**

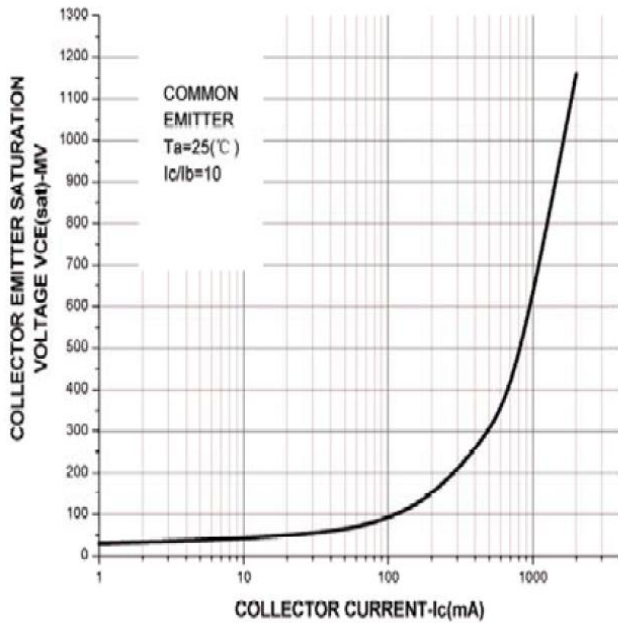
**Ic-Vce**



**Ib-Vbe**



**Vcesat-Ic**



**hFE-Ic**

