2SC1654

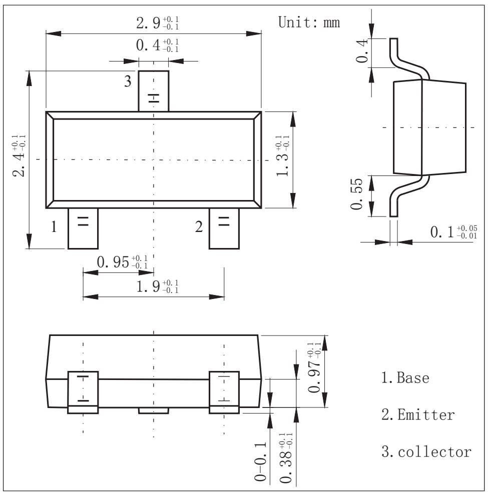
SOT-23 Plastic-Encapsulate Transistors

FEATURES

- Collector Current Capability IC=50mA
- Collector Emitter Voltage VCEO=160V
- NPN Transistors

MECHANICAL DATA

- Case style:SOT-23molded plastic
- Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

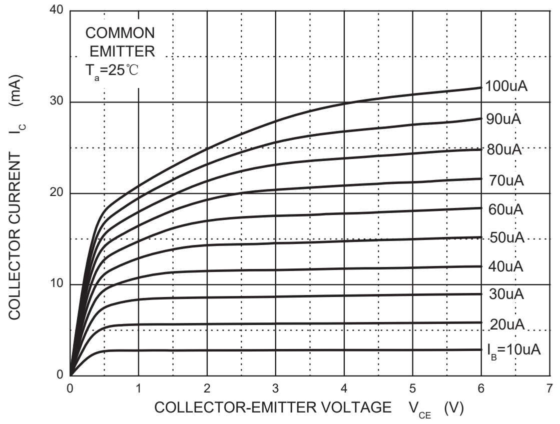
@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	180	V
Collector - Emitter Voltage	V_{CEO}	160	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	50	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_J	125	℃
Storage Temperature Range	T_{stg}	-55 to 125	

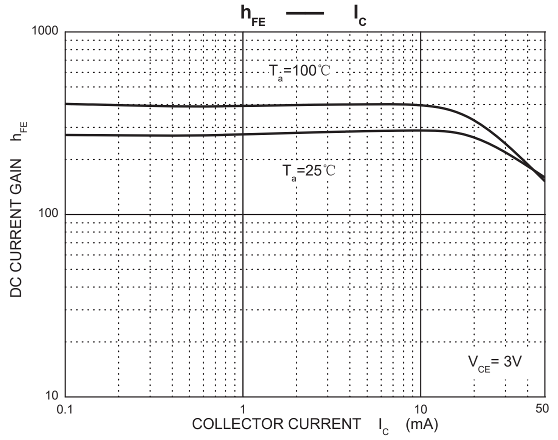
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= 100 μA， I_E= 0	180			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 1 mA， I_B= 0	160			
Emitter - base breakdown voltage	V_{EBO}	I_E= 100 μ A， I_C= 0	5			
Collector-base cut-off current	I_{CBO}	V_{CB}= 160 V , I_E= 0			0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= 5V , I_C=0			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=50mA, I_B=5mA			0.3	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=50mA, I_B=5mA			1	
DC current gain	h_{FE}	V_{CE}= 3V, I_C= 1mA	70			
		V_{CE}= 3V, I_C= 15mA	90		400	
Collector output capacitance	C_{ob}	V_{CB}= 10V, I_E=0,f=1MHz		2.3		pF
Transition frequency	f_T	V_{CE}= 10V, I_E= -10mA		120		MHz

RATINGS AND CHARACTERISTIC CURVES

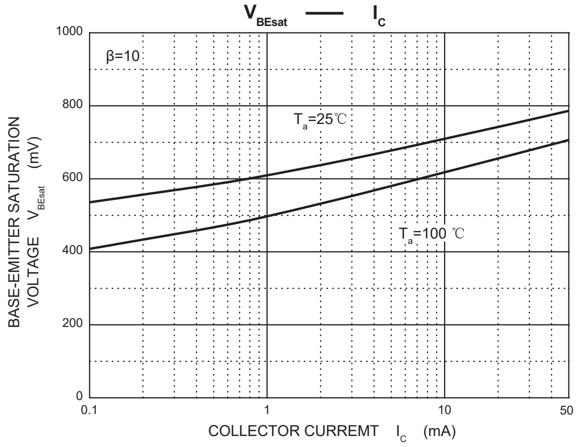
Static Characteristic



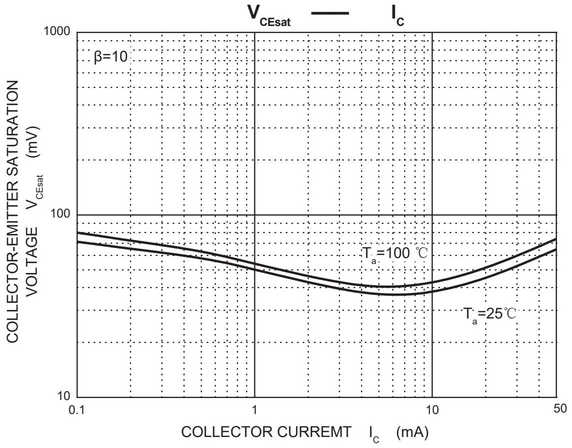
h_{FE} — I_C



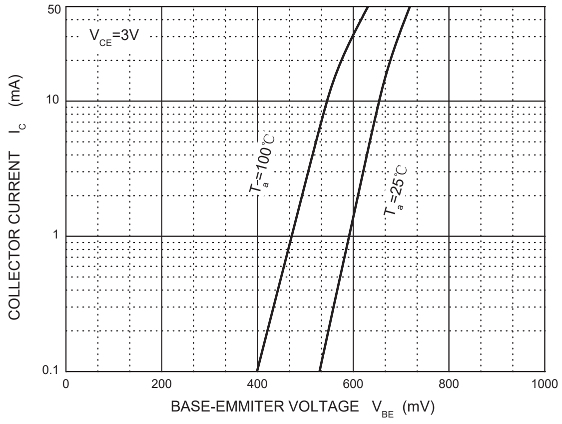
V_{BEsat} — I_C



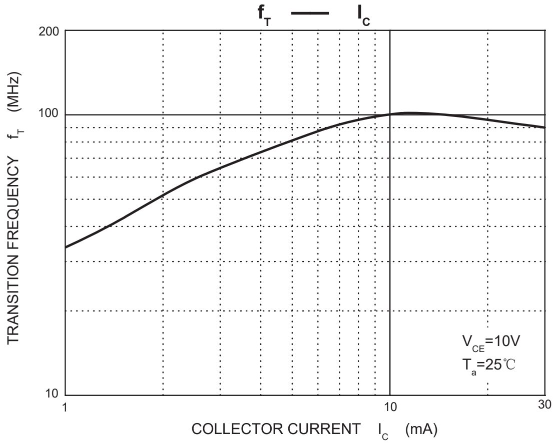
V_{CEsat} — I_C



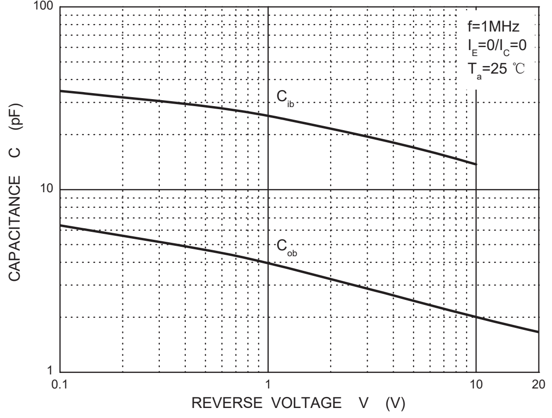
I_C — V_{BE}



f_T — I_C



C_{ob}/C_{ib} — V_{CB}/V_{EB}



P_C — T_a