

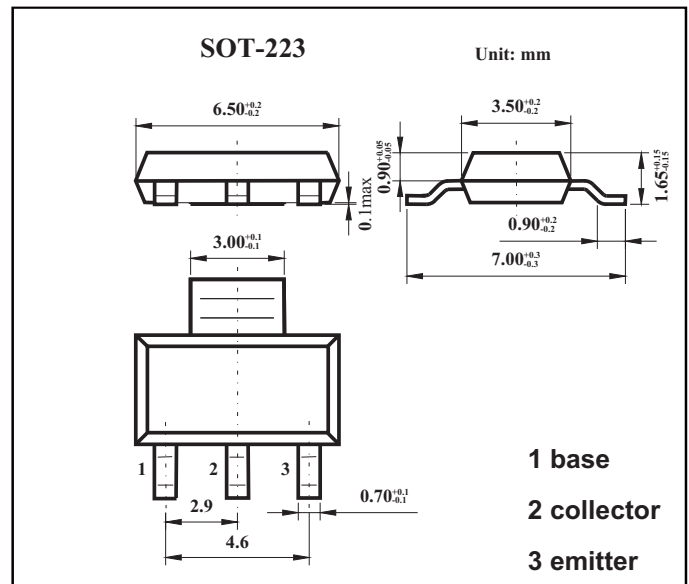
SOT-223 Plastic-Encapsulate Transistors

Features

- NPN Medium Power Transistor
- For AF driver and output stages
- High collector current
- Low collector-emitter saturation voltage

MECHANICAL DATA

- Case style:SOT-223 molded plastic
- Mounting position:any



Absolute Maximum Ratings

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
collector-base voltage	VCBO	100	V
collector-emitter voltage	VCEO	80	V
emitter-base voltage	VEBO	5	V
collector current (DC)	IC	1	A
peak collector current (tP < 5ms)	ICM	1.5	A
power dissipation	PD	1.5	W
thermal resistance from junction to ambient	RθJA	94	°C/ W
junction temperature	Tj	150	°C
storage temperature	Tstg	-65 to +150	°C

Electrical Characteristics Ta = 25 °C

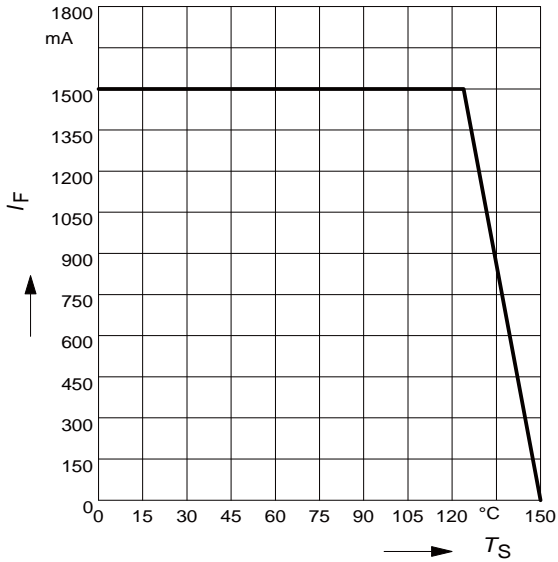
Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	IC= 0.1mA,IE=0	100			
Collector-emitter breakdown voltage	V _{(BR)CEO}	IC= 10mA,IB=0	80			
Base-emitter breakdown voltage	V _{(BR)EBO}	IC= 10μA,IE=0	5			
Collector cut-off current	ICBO	IE = 0 A; VCB = 30 V			100	nA
Emitter cut-off current	IEBO	IC = 0 A; VEB = 5 V			100	nA
DC current gain	hFE	IC = 5 mA; VCE = 2 V	25			
		IC =150 mA; VCE = 2 V	100		250	
		IC = 500 mA; VCE = 2 V	25			
Collector-emitter saturation voltage	V _{CE(sat)}	IC = 500mA; IB = 50 mA			0.5	V
Transition frequency	fr	IC = 10 mA; VCE = 5 V; f = 100 MHz		130		MHz

Marking

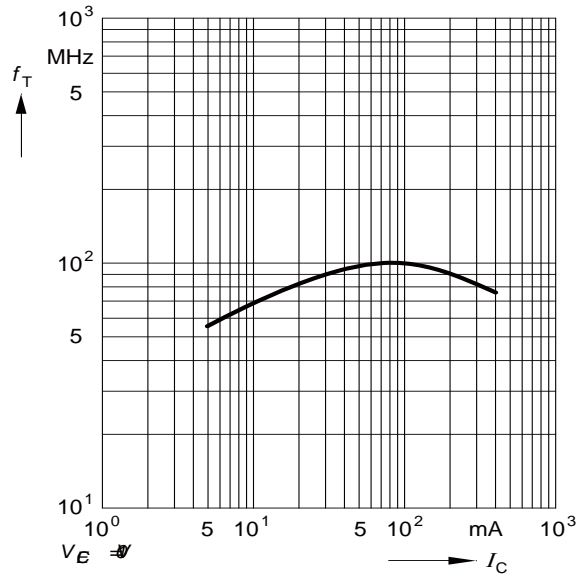
Marking	BCP 56
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RATINGS AND CHARACTERISTIC CURVES

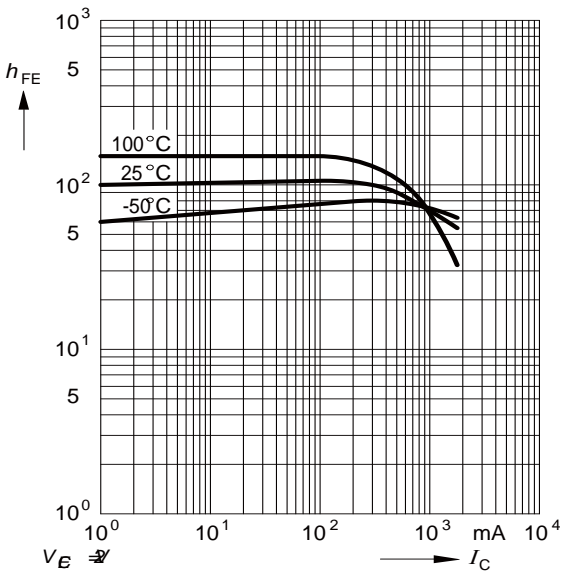
■ Typical Characteristics



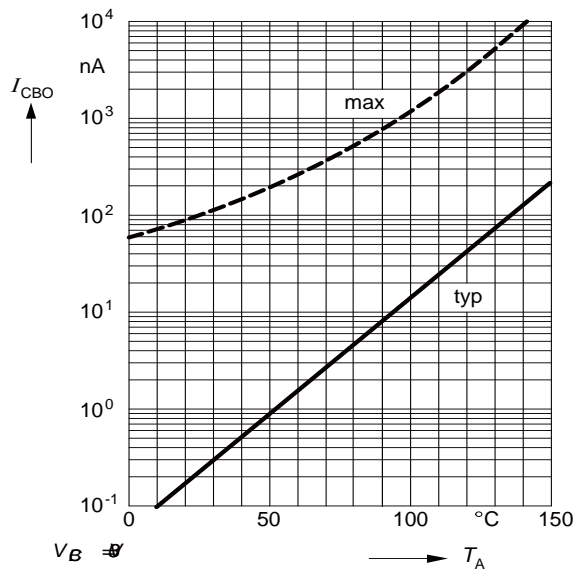
Total power dissipation $P_{tot} = f(T_S)$



Transition frequency $f_T = f(I_C)$



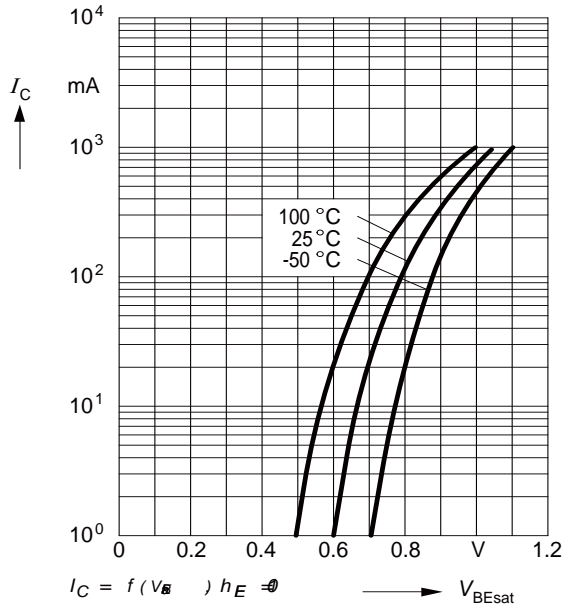
DC current gain $h_{FE} = f(I_C)$



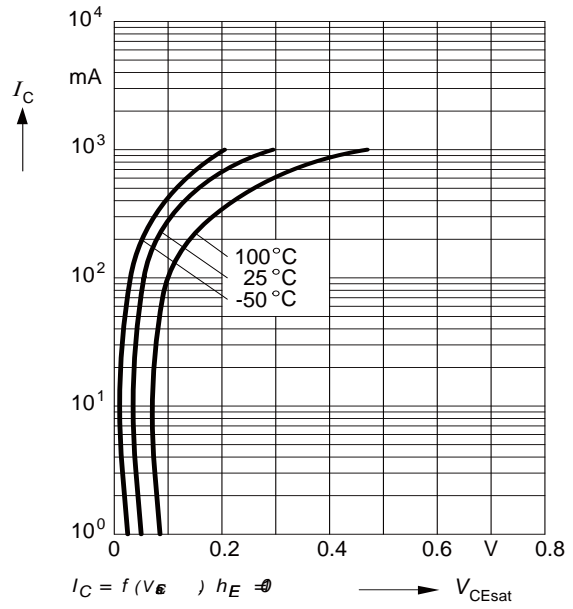
Collector cutoff current $I_{CBO} = f(T_A)$

RATINGS AND CHARACTERISTIC CURVES

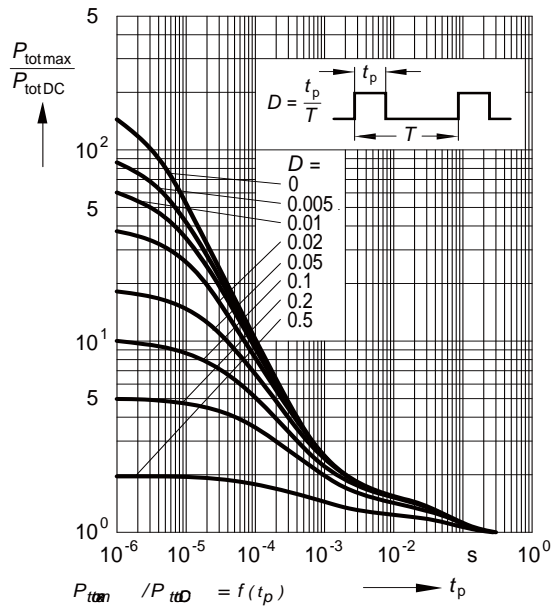
Typical Characteristics



Base-emitter saturation voltage



Collector-emitter saturation voltage



Permissible pulse load