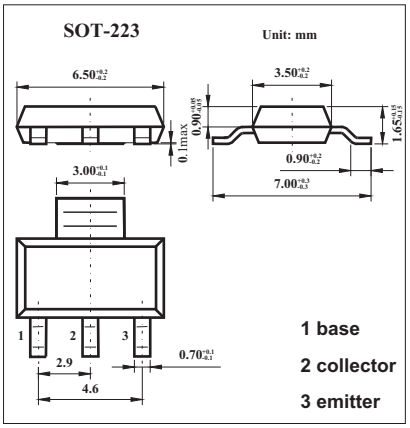
TY Semicondutor®

Product specification

BCP56-16

■ Features

- For AF driver and output stages
- High collector current
- Low collector-emitter saturation voltage



■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
collector-base voltage	V_{CBO}	100	V
collector-emitter voltage	V_{CEO}	80	V
emitter-base voltage	V_{EBO}	5	V
collector current (DC)	I_C	1	A
peak collector current (t_P < 5ms)	I_{CM}	1.5	A
power dissipation	P_D	1.5	W
thermal resistance from junction to ambient	$R_{\theta JA}$	94	℃/W
junction temperature	T_j	150	℃
storage temperature	Tstg	-65 to +150	℃

■ Electrical Characteristics Ta = 25℃

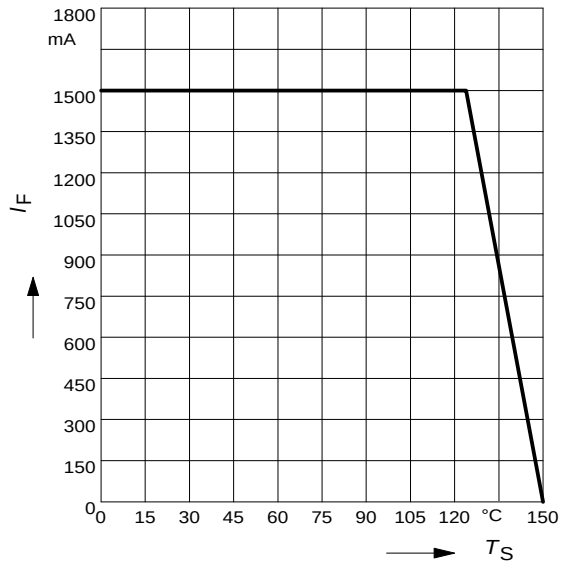
Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= 0.1mA,I_E=0	100			
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C= 10mA,I_B=0	80			
Base-emitter breakdown voltage	$V_{(BR)EBO}$	I_C= 10μA,I_E=0	5			
Collector cut-off current	I_{CBO}	I_E = 0 A; V_{CB} = 30 V			100	nA
Emitter cut-off current	I_{EBO}	I_C = 0 A; V_{EB} = 5 V			100	nA
DC current gain	h_{FE}	I_C = 5 mA; V_{CE} = 2 V	25			
		I_C =150 mA; V_{CE} = 2 V	100		250	
		I_C = 500 mA; V_{CE} = 2 V	25			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 500mA; I_B = 50 mA			0.5	V
Transition frequency	f_T	I_C = 10 mA; V_{CE} = 5 V; f = 100 MHz		130		MHz

■ Marking

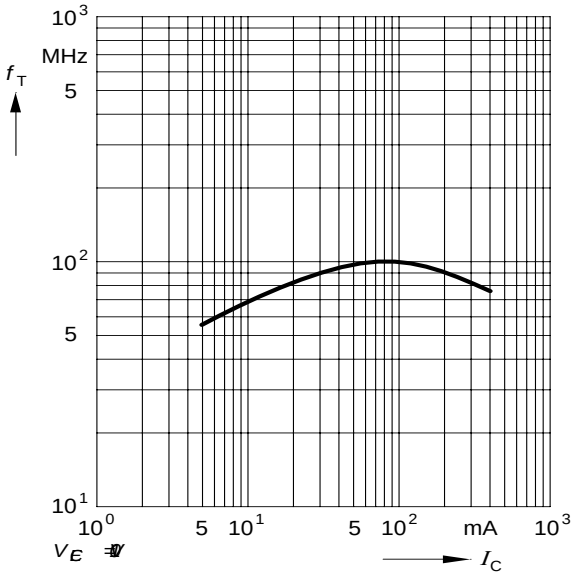
Marking	BCP 56

BCP56-16

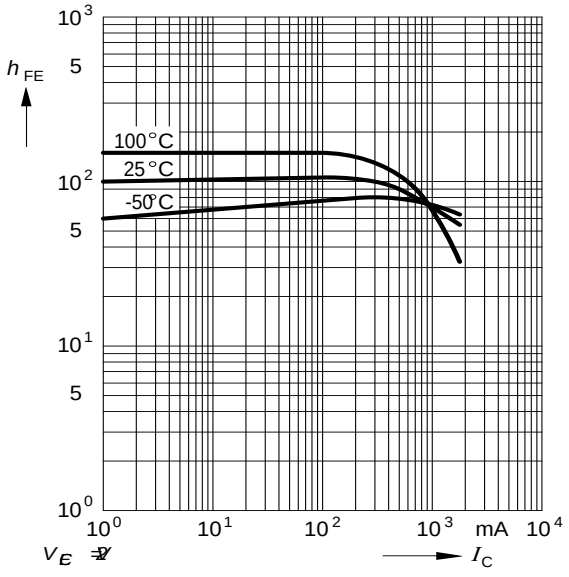
■ Typical Characteristics



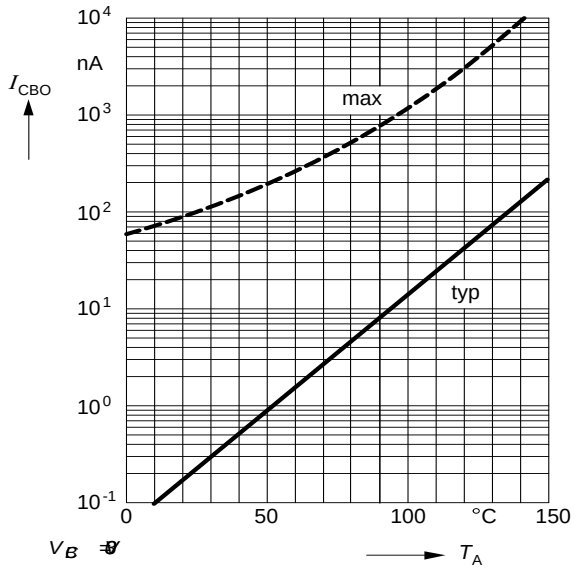
Total power dissipation $P_{tot} = f(T_S)$



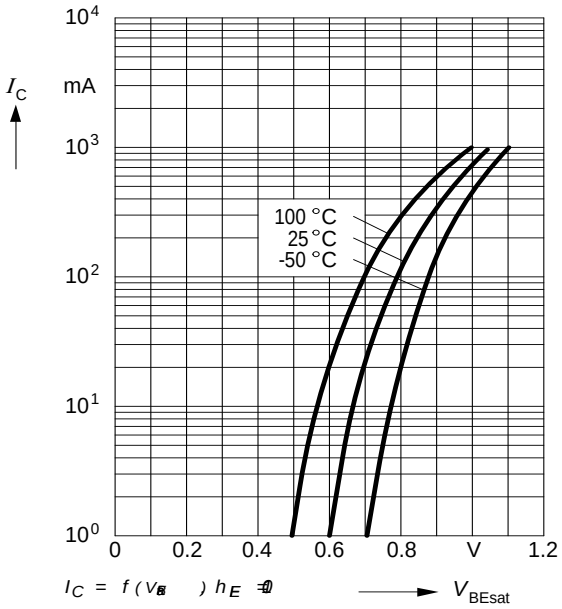
Transition frequency $f_T = f\ (I_C)$



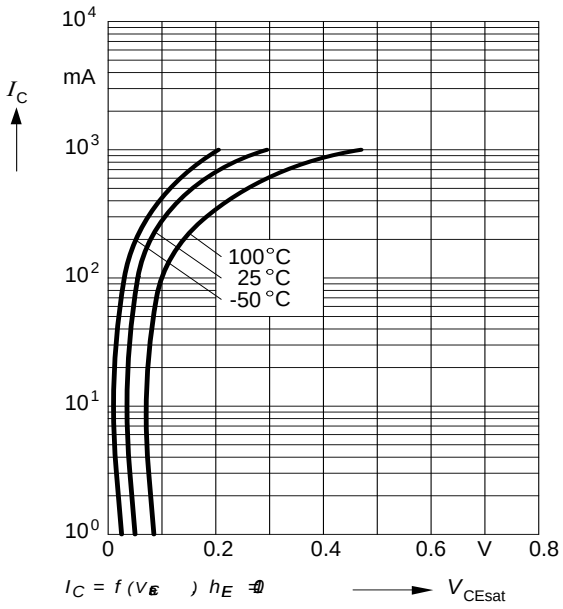
DC current gain $h_{FE} = f\ (I_C)$



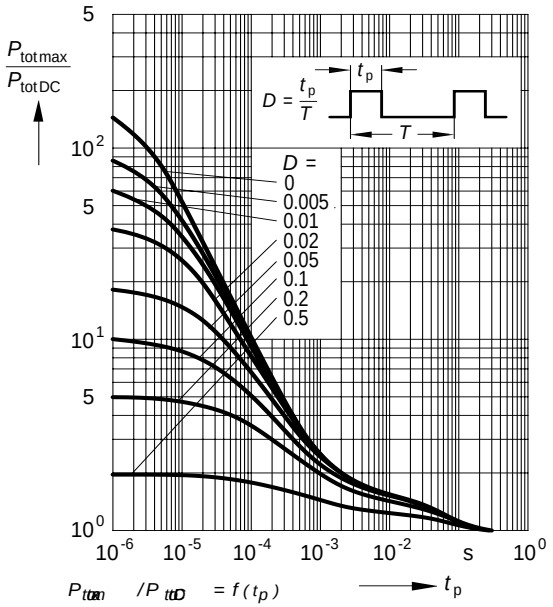
Collector cutoff current $I_{CBO} = f\ (T_A)$



Base-emitter saturation voltage



Collector-emitter saturation voltage



Permissible pulse load