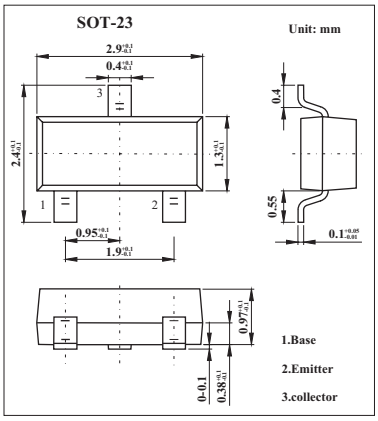
TY Semicondutor®

Product specification

KC846A,B/KC847A,B,C/KC848A,B,C

(BC846A,B/BC847A,B,C/BC848A,B,C)



■ Features

- Ideally suited for automatic insertion
- For Switching and AF Amplifier Applications

■ Absolute Maximum Ratings Ta = 25℃

Parameter		Symbol	Rating	Unit
Collector-Base Voltage	KC846	V_{CBO}	80	V
	KC847		50	
	KC848		30	
Collector-Emitter Voltage	KC846	V_{CEO}	65	V
	KC847		45	
	KC848		30	
Emitter-Base Voltage		V_{EBO}	6	V
Collector Current -Continuous		I_C	0.1	A
Collector Power Dissipation		P_C	200	mW
Junction Temperature		T_J	150	℃
Storage Temperature		T_{stg}	-65 to +150	℃

KC846A,B/KC847A,B,C/KC848A,B,C

(BC846A,B/BC847A,B,C/BC848A,B,C)

■ Electrical Characteristics Ta = 25℃

Parameter		Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	KC846	V_{CBO}	I_C = 10 μA , I_E = 0	80			V
	KC847			50			
	KC848			30			
Collector-emitter breakdown voltage	KC846	V_{CEO}	I_C = 10mA , I_B = 0	65			V
	KC847			45			
	KC848			30			
Emitter-base Breakdown voltage		V_{EBO}	I_E = 10 μA , I_C = 0	6			V
Collector-base cutoff current	KC846	I_{CBO}	V_{CB} = 70 V , I_E = 0			0.1	μA
	KC847		V_{CB} = 50 V , I_E = 0				
	KC848		V_{CB} =30 V , I_E = 0				
Collector-emitter cutoff current	KC846	I_{CEO}	V_{CE} = 70V , I_B = 0			0.1	μA
	KC847		V_{CE} = 50V , I_B = 0				
	KC848		V_{CE} = 30V , I_B = 0				
Emitter-base cutoff current		I_{EBO}	V_{EB} = 5 V , I_C = 0			0.1	μA
DC current gain	KC846A,847A,848A	h_{FE}	V_{CE} = 5 V , I_C = 2 mA	110		220	
	KC846B,847B,848B			200		450	
	KC847C,848C			420		800	
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C = 100 mA , I_B = 5mA			0.5	V
Base-emitter saturation voltage		$V_{BE(sat)}$	I_C = 100 mA , I_B = 5mA			1.1	V
Collector output capacitance		C_{ob}	V_{CB}=10V,f=1MHz			4.5	pF
Transition frequency		f_T	V_{CE} = 5 V , I_C = 10 mA , f = 100 MHz	100			MHz

■ Marking

NO.	KC846A	KC846B
Marking	1A	1B

NO.	KC847A	KC847B	KC847C
Marking	1E	1F	1G

NO.	KC848A	KC848B	KC848C
Marking	1J	1K	1L

KC846A,B/KC847A,B,C/KC848A,B,C

(BC846A,B/BC847A,B,C/BC848A,B,C)

■ Typical Characteristics

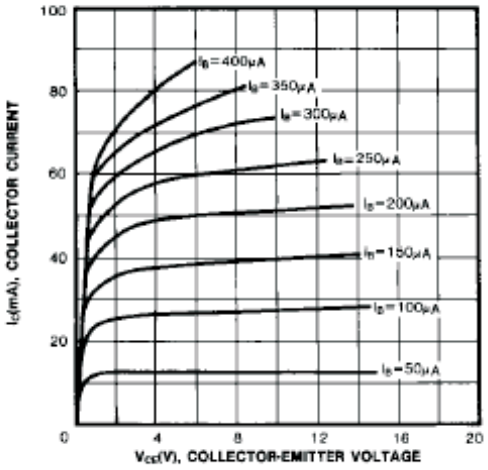


Fig.1 Static Characteristic

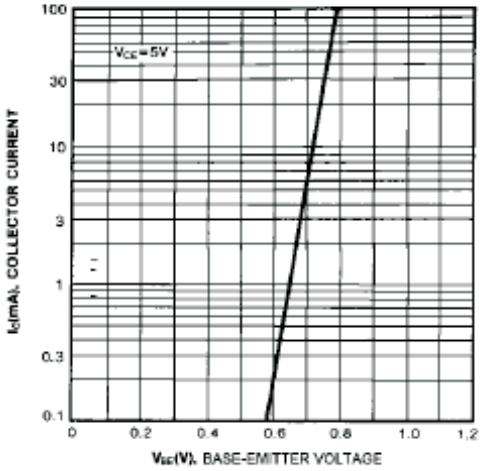


Fig.2 Transfer Characteristic

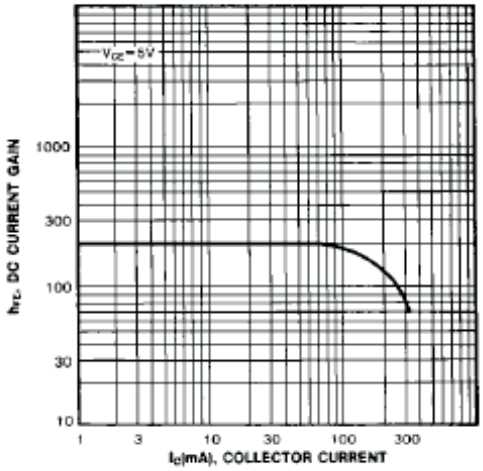


Fig.3 DC Current Gain

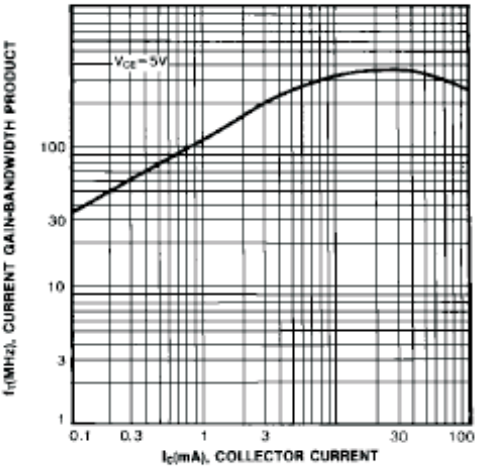


Fig.4 Current Gain Bandwidth Product

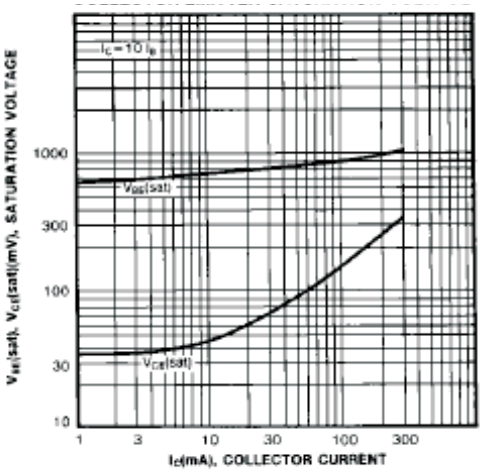


Fig.5 Base Emitter Saturation Voltage

Collector Emitter Saturation Voltage

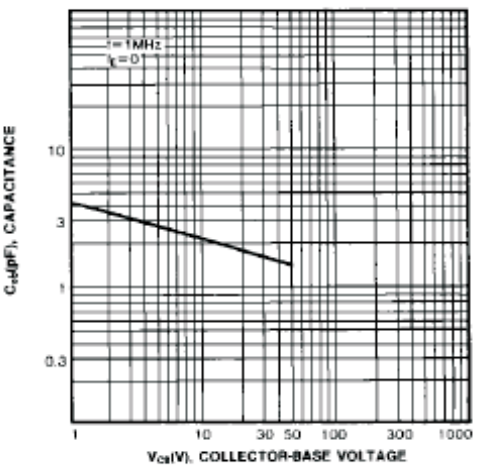


Fig.6 Output Capacitance