



High hfe, AF Amplifier Applications

Applications

· Drivers, muting circuits.

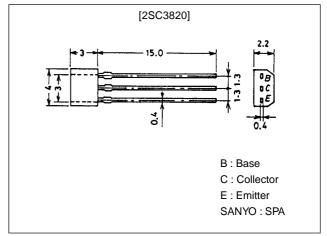
Features

- · Adoption of FBET and MBIT processes.
- · High DC current gain (h_{FE}=800 to 3200).
- · Low collector-to-emitter saturation voltage ($V_{CE(sat)} \le 0.5V$).
- · High V_{EBO} (V_{EBO}≥15V).
- · Small C_{ob} (C_{ob} =2.0pF typ).

Package Dimensions

unit:mm

2033



Specifications

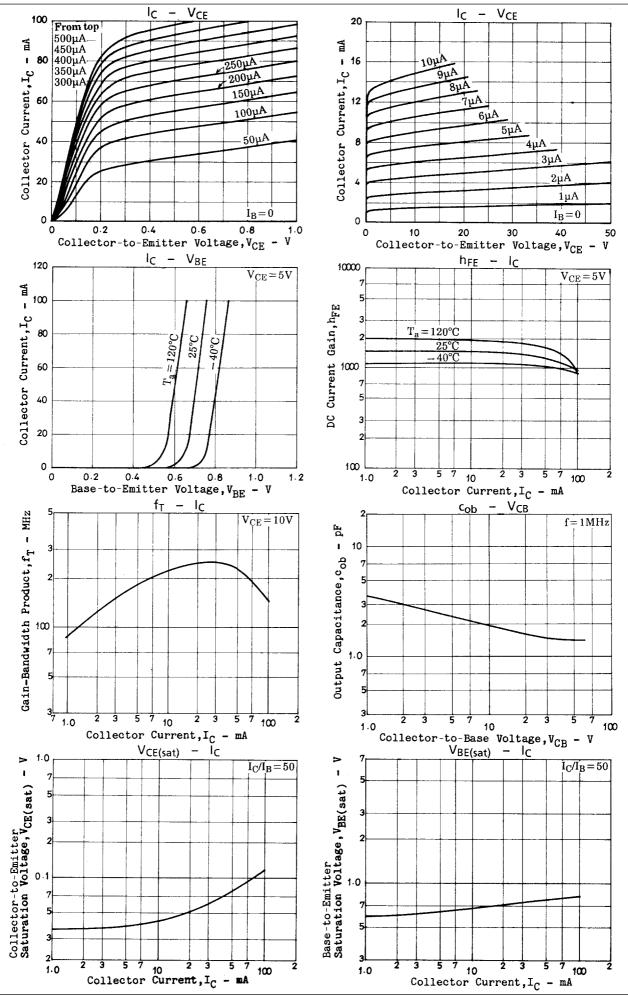
Absolute Maximum Ratings at Ta = 25°C

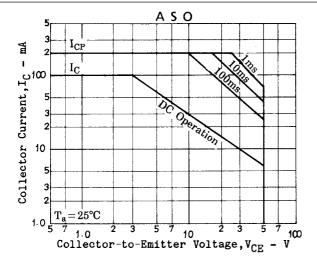
Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CBO}		60	V
Collector-to-Emitter Voltage	VCEO		50	V
Emitter-to-Base Voltage	VEBO		15	V
Collector Current	I _C		100	mA
Collector Current (Pulse)	I _{CP}		200	mA
Collector Dissipation	PC		300	mW
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

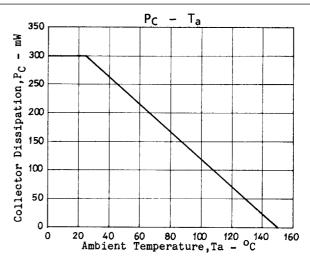
Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
	Symbol		min	typ	max	UIIII
Collector Cutoff Current	I _{CBO}	V _{CB} =40V, I _E =0			0.1	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} =10V, I _C =0			0.1	μA
DC Current Gain	hFE	V _{CE} =5V, I _C =10mA	800	1500	3200	
Gain-Bandwidth Product	fT	V _{CE} =10V, I _C =10mA		200		MHz
Output Capacitance	C _{ob}	V _{CB} =10V, f=1MHz		2.0		pF
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =50mA, I _B =1mA		0.1	0.5	mV
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =50mA, I _B =1mA		0.8	1.1	V
Collector-to-Base Breakdown Voltage	V(BR)CBO	I _C =10μA, I _E =0	60			V
Collector-to-Emitter Breakdown Voltage	V _(BR) CEO	I _C =1mA, R _{BE} =∞	50			V
Emitter-to-Base Breakdown Voltage	V _{(BR)EBO}	I _E =10μA, I _C =0	15			V

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