

2SC3071

High h_{FE}, Low-Frequency General-Purpose Amplifier Applications

Applications

· Low-frequency, general-purpose amplifier., various drivers, muting circuit.

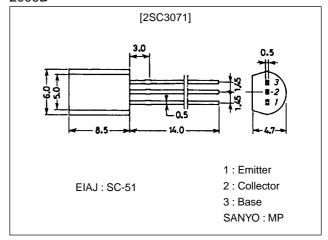
Features

- · High DC current gain (h_{FE}=500 to 2000).
- · High breakdown voltage (V_{CEO}≥100V).
- · Low collector-to-emitter saturation voltage ($V_{CE(sat)} \le 0.5V$).
- · High V_{EBO} (V_{EBO}≥15V).

Package Dimensions

unit:mm

2006B



Specifications

Absolute Maximum Ratings at Ta = 25°C

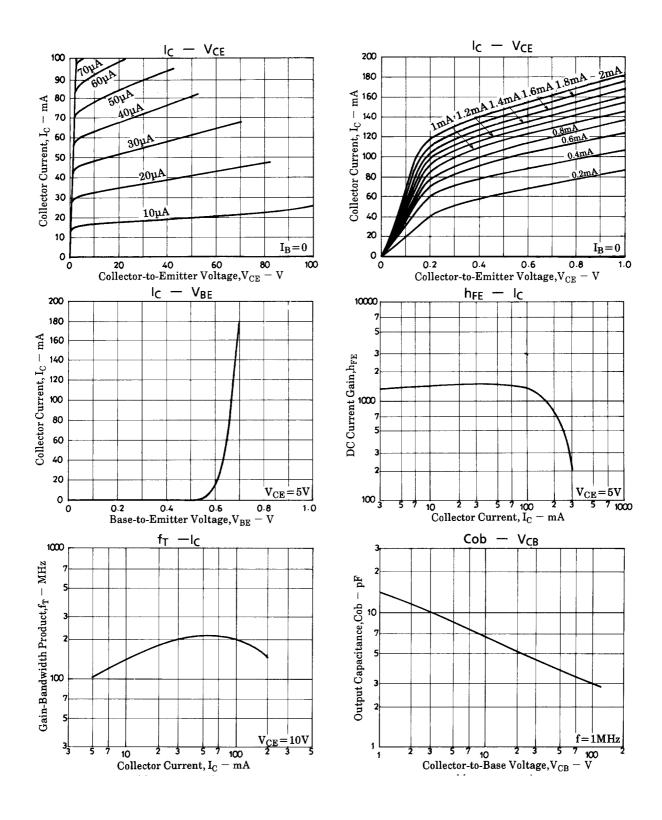
Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CBO}		120	V
Collector-to-Emitter Voltage	VCEO		100	V
Emitter-to-Base Voltage	V _{EBO}		15	V
Collector Current	IC		200	mA
Collector Current (Pulse)	I _{CP}		300	mA
Base Current	Ι _Β		40	mA
Collector Dissipation	PC		1	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

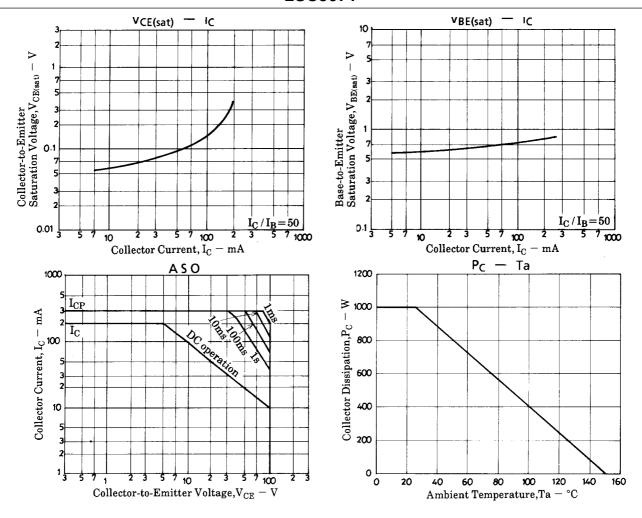
Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I _{CBO}	V _{CB} =80V, I _E =0			0.1	μΑ
Emitter Cutoff Current	I _{EBO}	V _{EB} =10V, I _C =0			0.1	μΑ
DC Current Gain	h _{FE} 1	V _{CE} =5V, I _C =10mA	500		2000	
	h _{FE} 2	V _{CE} =5V, I _C =100mA	400			
Gain-Bandwidth Product	fT	V _{CE} =10V, I _C =10mA		150		MHz
Output Capacitance	C _{ob}	V _{CB} =10V, f=1MHz		6.5		pF

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	01111
Collector-to-Emitter Saturation Voltage	VCE(sat)	I _C =100mA, I _B =2mA		0.15	0.5	V
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =100mA, I _B =2mA		0.85	1.2	V
Collector-to-Base Breakdown Voltage	V(BR)CBO	I _C =10μA, I _E =0	120			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	I _C =1mA, R _{BE} =∞	100			V
Emitter-to-Base Breakdown Voltage	V(BR)EBO	I _E =10μA, I _C =0	15			V





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