Ordering number:EN934G

NPN Epitaxial Planar Silicon Transistor

2SC3069

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

Applications

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

Features

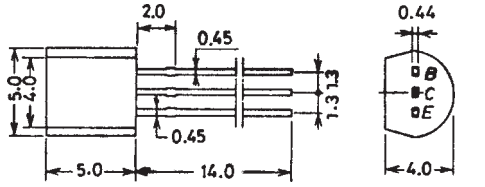
· High DC current gain (h_{FE}=800 to 3200).
· Low collector-to-emitter saturation voltage ($V_{CE(sat)}$=0.5V max).
· High V_{EBO} (V_{EBO}≥15V).

Package Dimensions

unit:mm

2003A

[2SC3069]



JEDEC : TO-92
EIAJ : SC-43

B : Base
C : Collector
E : Emitter
SANYO : NP

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	V_{CEO}		50	V
Emitter-to-Base Voltage	V_{EBO}		15	V
Collector Current	I_C		200	mA
Collector Current (Pulse)	I_{CP}		300	mA
Base Current	I_B		40	mA
Collector Dissipation	P_C		600	mW
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}=40V, I_E=0			0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=10V, I_C=0			0.1	μA
DC Current Gain	$h_{FE}1$	V_{CE}=5V, I_C=10mA	800	1500	3200	
	$h_{FE}2$	V_{CE}=5V, I_C=100mA	600			
Gain-Bandwidth Product	f_T	V_{CE}=10V, I_C=10mA		250		MHz
Output Capacitance	C_{ob}	V_{CB}=10V, f=1MHz		4.0		pF

SANYO Electric Co.,Ltd. Semiconductor Bussiness Headquaters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=100mA, I_B=2mA		0.12	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	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