Ordering number:EN1779A

NPN Epitaxial Planar Silicon Transistor

2SC3651

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

Applications

· LF amplifiers, various drivers, muting circuit.

Features

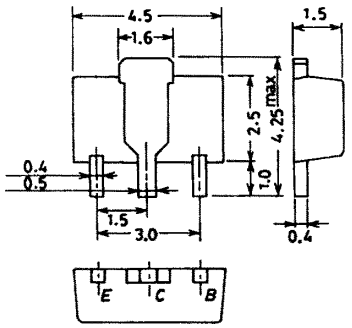
· High DC current gain (h_{FE}=500 to 2000).
· High breakdown voltage (V_{CEO}≥100V).
· Low collector-to-emitter saturation voltage ($V_{CE(sat)}$≤0.5V).
· High V_{EBO} (V_{EBO}≥15V).
· Very small size making it easy to provide high-density, small-sized hybrid IC's.

Package Dimensions

unit:mm

2038

[2SC3651]



E : Emitter
C : Collector
B : Base
SANYO : PCP
(Bottom view)

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	V_{CEO}		100	V
Emitter-to-Base Voltage	V_{EBO}		15	V
Collector Current	I_C		200	mA
Collector Current (Pulse)	I_{CP}		300	mA
Collector Dissipation	P_C		500	mW
	P_C*		1.3	W
Junction Temperature	Tj		150	˚C
Storage Temperature	Tstg		–55 to +150	˚C

* Mounted on ceramic board (250mm²×0.8mm)

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	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	500	1000	2000	
	$h_{FE}2$	V_{CE}=5V, I_C=100mA	400			
Gain-Bandwidth Product	f_T	V_{CE}=10V, I_C=10mA		150		MHz
Output Capacitance	C_{ob}	V_{CB}=10V, f=1MHz		6.5		pF

Marking : CG

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		0.15	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, I_B=0	100			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=10μA, I_C=0	15			V