Ordering number:EN3287

FC133

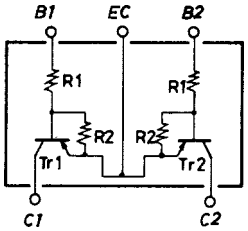
PNP Epitaxial Planar Silicon Composite Transistor

Switching Applications (with Bias Resistance)

Features

- On-chip bias resistances (R1=10kΩ, R2=47kΩ)).
- Composite type with 2 transistors contained in the CP package currently in use, improving the mounting efficiency greatly.
- The FC133 is formed with two chips, being equivalent to the 2SA1563, placed in one package.
- Excellent in thermal equilibrium and pair capability.

Electrical Connection

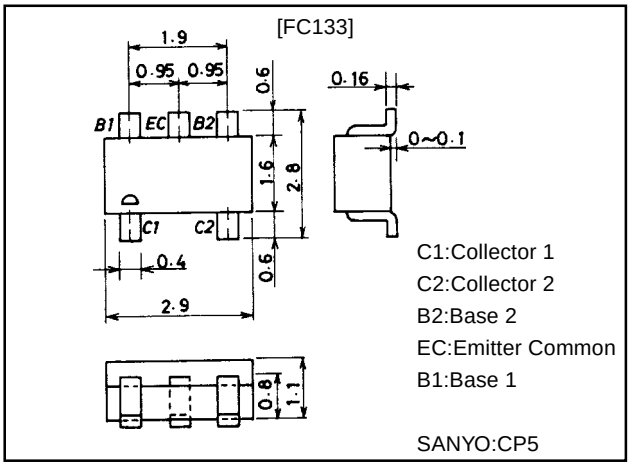


C1:Collector 1
C2:Collector 2
B2:Base 2
EC:Emitter Common
B1:Base 1

Package Dimensions

unit:mm

2066



Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		–50	V
Collector-to-Emitter Voltage	V_{CEO}		–50	V
Emitter-to-Base Voltage	V_{EBO}		–6	V
Collector Current	I_C		–100	mA
Peak Collector Current	I_{CP}		–200	mA
Collector Dissipation	P_C	1 unit	200	mW
Total Power Dissipation	P_T		300	mW
Junction Temperature	Tj		150	˚C
Storage Temperature	Tstg		–55 to +150	˚C

Electrical Characteristics at Ta = 25˚C

Parameter	Symbol	Conditons	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	V_{CB}=–40V, I_E=0			–0.1	μA
Collector Cutoff Current	I_{CEO}	V_{CB}=–40V, I_B=0			–0.5	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=–5V, I_C=0	–67	–88	–125	μA
DC Current Gain	h_{FE}	V_{CE}=–5V, I_C=–5mA	70			
Gain-Bandwidth Product	f_T	V_{CE}=–10V, I_C=–5mA		200		MHz
Output Capacitance	Cob	V_{CB}=–10V, f=1MHz		5.1		pF
C-E Saturation Voltage	$V_{CE(sat)}$	I_C=–10mA, I_B=–0.5mA		–0.1	–0.3	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	I_C=–10μA, I_E=0	–50			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	I_C=–100μA, R_{BE}=∞	–50			V
Input OFF-State Voltage	$V_{I(off)}$	V_{CE}=–5V, I_C=–100μA	–0.5	–0.7	–0.9	V
Input ON-State Voltage	$V_{I(on)}$	V_{CE}=–0.2V, I_C=–5mA	–0.7	–1.0	–2.0	V
Input Resistance	R1		7	10	13	kΩ
Resistacne Ratio	R1/R2		0.193	0.213	0.234	

Note:The specifications shown above are for each individual transistor.

Marking:133

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