

FC116

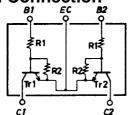
NPN Epitaxial Planar Silicon Composite Transistor

Switching Applications

Features

- · On-chip bias resistors ($R_1=10k\Omega$, $R_2=10k\Omega$)
- · Composite type with 2 transistors contained in the CP package currently in use, improving the mounting efficiency greatly.
- The FC116 is formed with two chips, being equivalent to the 2SC3398, placed in one package.
- · Excellent in thermal equilibrium and pair capability.

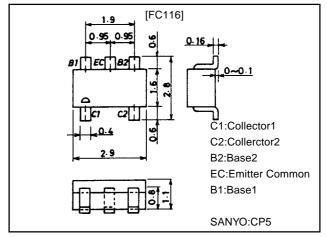
Electrical Connection



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	VCEO		50	V
Emitter-to-Base Voltage	V _{EBO}		10	V
Collector Current	Ic		100	mA
Collector Current (Pulse)	I _{CP}		200	mA
Collector Dissipation	PC	1 unit	200	mW
Total Dissipation	PT		300	mW
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to+150	°C

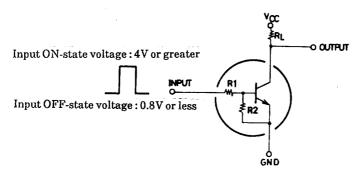
Electrical Characteristics at Ta = 25°C

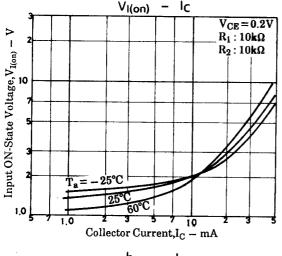
Parameter	Symbol	Conditions	Ratings			Llmit
			min	typ	max	Unit
Collector Cutoff Current	I _{CBO}	V _{CB} =40V, I _E =0			0.1	μA
Collector Cutoff Current	ICEO	V _{CE} =40V, I _B =0			0.5	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} =5V, I _C =0	170	250	360	μΑ
DC Current Gain	hFE	V _{CE} =5V, I _C =10mA	50			
Gain-Bandwidth Product	f _T	V _{CE} =10V, I _C =5mA		250		MHz
Output Capacitance	Cob	V _{CB} =10V, f=1MHz		3.3		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	0.8	1.1	1.5	V
Input ON-State Voltage	V _{I(on)}	V _{CE} =0.2V, I _C =10mA	1.0	2.0	4.0	V
Input Resistance	R ₁		7.0	10	13	kΩ
Resistance Ratio	R ₁ /R ₂		0.9	1.0	1.1	

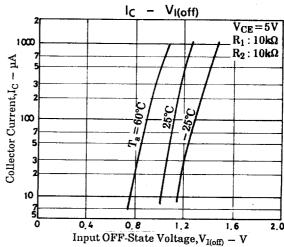
Note: The specifications shown above are for each individual transistor.

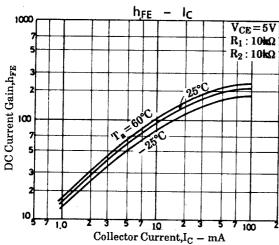
Marking:116

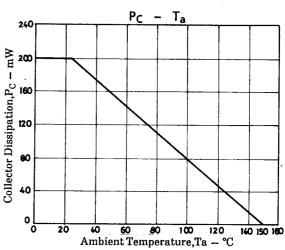
Sample Application Circuit











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