

Medium Power Transistor (Chroma Output) (300V, 0.1A)

2SC5147

●Features

- 1) High breakdown voltage. ($BV_{CEO} = 300V$)
- 2) Low collector output capacitance.
(Typ.3pF at $V_{CB} = 30V$)
- 3) Wide SOA. (safe operating area)
- 4) Ideal for color TV chroma output and amplification of video signals.

●Absolute maximum ratings ($T_a=25^\circ C$)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	300	V
Collector-emitter voltage	V_{CEO}	300	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_c	100	mA (DC)
Collector power dissipation	P_c	2	W
		10	W ($T_c = 25^\circ C$)
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-55~+150	$^\circ C$

●Packaging specifications and h_{FE}

Type	2SC5147
Package	TO-220FN
h_{FE}	DE
Code	-
Basic ordering unit (pieces)	500

●Electrical characteristics ($T_a=25^\circ C$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	300	-	-	V	$I_c = 50\mu A$
Collector-emitter breakdown voltage	BV_{CEO}	300	-	-	V	$I_c = 100\mu A$
Emitter-base breakdown voltage	BV_{EBO}	5	-	-	V	$I_E = 50\mu A$
Collector cutoff current	I_{CBO}	-	-	0.5	μA	$V_{CB} = 200V$
Emitter cutoff current	I_{EBO}	-	-	0.5	μA	$V_{EB} = 4V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	0.2	1	V	$I_c/I_E = 50mA/5mA$
DC current transfer ratio	h_{FE}	60	-	200	-	$V_{CE}/I_c = 10V/10mA$
Transition frequency	f_T	50	100	-	MHz	$V_{CE} = 30V, I_E = -20mA, f = 30MHz$
Output capacitance	C_{ob}	-	3	-	pF	$V_{CB} = 30V, I_E = 0A, f = 1MHz$

* Measured using pulse current.

●External dimensions (Units : mm)

