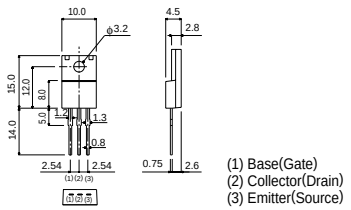
Medium Power Transistor (Chroma Output) (300V, 0.1A)

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.

●External dimensions (Units : mm)



ROHM : TO-220FN

●Absolute maximum ratings (Ta=25°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 (Tc = 25°C)
Junction temperature	Tj	150	°C
Storage temperature	Tstg	−55~+150	°C

●Packaging specifications and h_{FE}

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

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	300	-	-	V	I_C = 50μA
Collector-emitter breakdown voltage	BV_{CEO}	300	-	-	V	I_C = 100μA
Emitter-base breakdown voltage	BV_{EBO}	5	-	-	V	I_E = 50μA
Collector cutoff current	I_{CBO}	-	-	0.5	μA	V_{CB} = 200V
Emitter cutoff current	I_{EBO}	-	-	0.5	μA	V_{EB} = 4V
Collector-emitter suturation voltage	$V_{CE(sat)}$	-	0.2	1	V	I_C/I_B = 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	Cob	-	3	-	pF	V_{CB} = 30V , I_E = 0A , f = 1MHz

* Measured using pulse current.