2SC4545

Silicon NPN epitaxial planar type

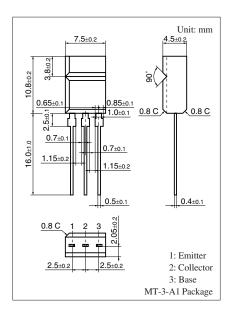
For medium output power amplification

■ Features

• Allowing supply with the radial taping

■ Absolute Maximum Ratings $T_a = 25$ °C

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	V _{CBO}	50	V	
Collector-emitter voltage (Base open)	V _{CEO}	40	V	
Emitter-base voltage (Collector open)	V_{EBO}	5	V	
Collector current	I_C	1.5	A	
Peak collector current	I_{CP}	3	A	
Collector power dissipation	P _C	1.5	W	
Junction temperature	T_{j}	150	°C	
Storage temperature	T_{stg}	-55 to +150	°C	



■ Electrical Characteristics $T_a = 25$ °C ± 3 °C

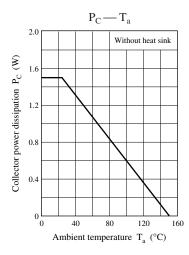
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V _{CBO}	$I_C = 1 \text{ mA}, I_E = 0$	50			V
Collector-emitter voltage (Base open)	V _{CEO}	$I_{\rm C} = 2 \text{ mA}, I_{\rm B} = 0$	40			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 20 \text{ V}, I_{E} = 0$			1	μΑ
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = 10 \text{ V}, I_{B} = 0$			100	μΑ
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = 5 \text{ V}, I_{C} = 0$			10	μΑ
Forward current transfer ratio *	h _{FE}	$V_{CE} = 5 \text{ V}, I_{C} = 1 \text{ A}$	50		220	_
Collector-emitter saturation voltage	V _{CE(sat)}	$I_C = 2 \text{ A}, I_B = 0.2 \text{ A}$			1	V
Base-emitter saturation voltage	V _{BE(sat)}	$I_C = 2 \text{ A}, I_B = 0.2 \text{ A}$			1.5	V
Transition frequency	f_T	$V_{CB} = 5 \text{ V}, I_{E} = -0.5 \text{ A}, f = 200 \text{ MHz}$		150		MHz
Collector output capacitance	C _{ob}	$V_{CB} = 20 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		35		pF
(Common base, input open circuited)						

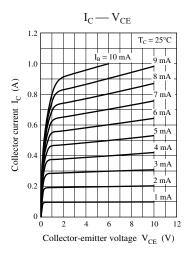
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

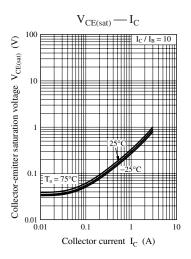
2. *: Rank classification

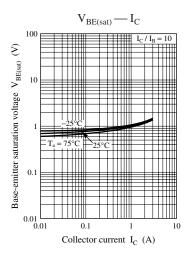
Rank	Р	Q	R
h_{FE}	50 to 100	80 to 160	120 to 220

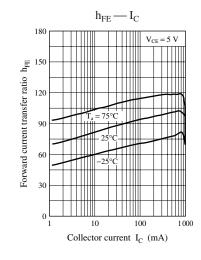
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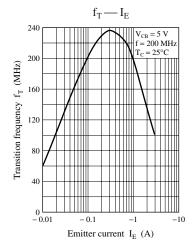


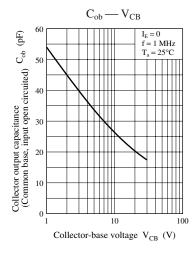


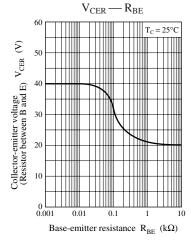


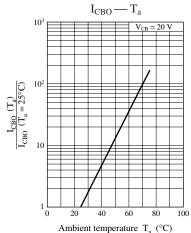




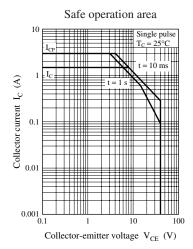


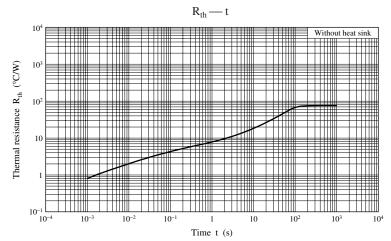






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