# 2SC4545

### Silicon NPN epitaxial planar type

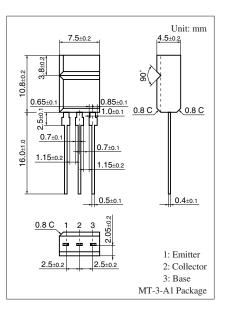
For medium output power amplification

#### Features

• Allowing supply with the radial taping

Parameter	Symbol	Rating	Unit				
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	50	V				
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	40	V				
Emitter-base voltage (Collector open)	V <sub>EBO</sub>	5	V				
Collector current	I <sub>C</sub>	1.5	А				
Peak collector current	I <sub>CP</sub>	3	А				
Collector power dissipation	P <sub>C</sub>	1.5	W				
Junction temperature	Tj	150	°C				
Storage temperature	T <sub>stg</sub>	-55 to +150	°C				





#### Electrical Characteristics $T_a = 25^{\circ}C \pm 3^{\circ}C$

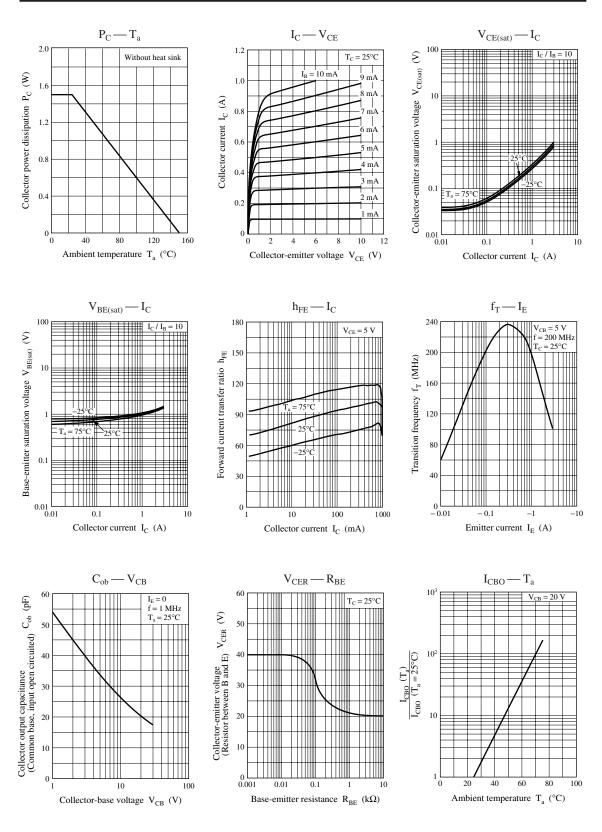
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	$I_{\rm C} = 1  {\rm mA},  I_{\rm E} = 0$	50			V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	$I_{\rm C} = 2  {\rm mA},  I_{\rm B} = 0$	40			V
Collector-base cutoff current (Emitter open)	I 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

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

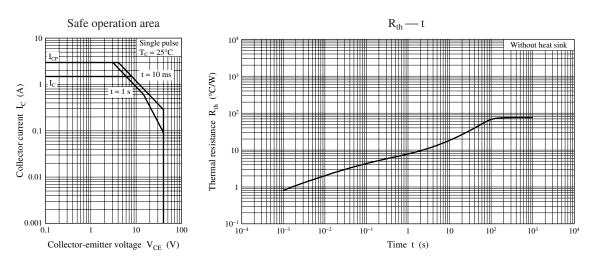
2. \*: Rank classification

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

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