

# 2SC5294, 2SC5294A

Silicon NPN triple diffusion mesa type

For horizontal deflection output

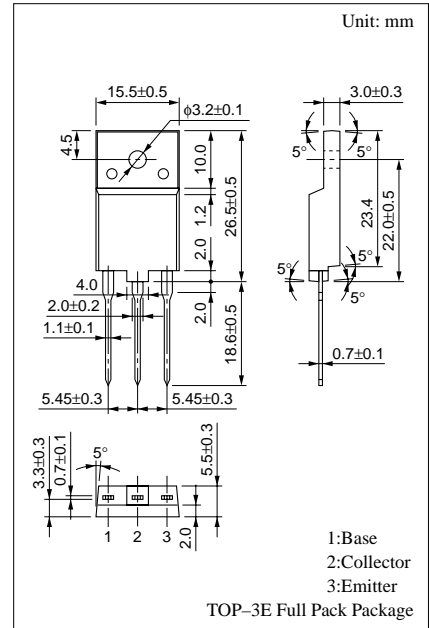
## Features

- High breakdown voltage, and high reliability through the use of a glass passivation layer
- High-speed switching
- Wide area of safe operation (ASO)

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## Absolute Maximum Ratings (Ta=25°C)

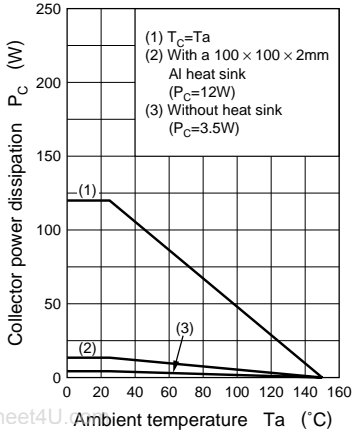
Parameter	Symbol	Ratings	Unit
Collector to base voltage	V <sub>CBO</sub>	1500	V
2SC5294		1600	
Collector to base voltage	V <sub>CES</sub>	1500	V
2SC5294A		1600	
Collector to emitter voltage	V <sub>CEO</sub>	600	V
Emitter to base voltage	V <sub>EBO</sub>	5	V
Peak collector current	I <sub>CP</sub>	30	A
Collector current	I <sub>C</sub>	20	A
Base current	I <sub>B</sub>	10	A
Collector power dissipation	P <sub>C</sub>	120	W
T <sub>C</sub> =25°C		3.5	
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C



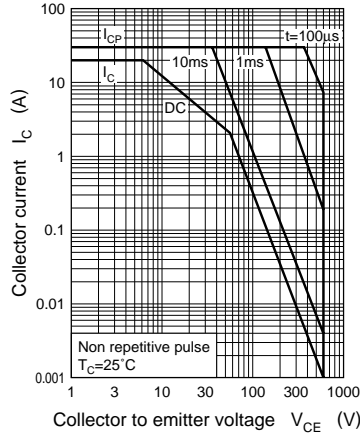
## Electrical Characteristics (T<sub>C</sub>=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> = 1000V, I <sub>E</sub> = 0			50	μA
					50	
		V <sub>CB</sub> = 1500V, I <sub>E</sub> = 0			1	mA
			V <sub>CB</sub> = 1600V, I <sub>E</sub> = 0			
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = 5V, I <sub>C</sub> = 0			50	μA
Forward current transfer ratio	h <sub>FE</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 10A	5		12	
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 10A, I <sub>B</sub> = 2.8A			3	V
Base to emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 10A, I <sub>B</sub> = 2.8A			1.5	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 10V		3		MHz
Storage time	t <sub>stg</sub>	I <sub>C</sub> = 12A, I <sub>B1</sub> = 2.4A, I <sub>B2</sub> = -4.8A		1.5	2.5	μs
Fall time	t <sub>f</sub>			0.12	0.2	μs

$P_C - T_a$



Area of safe operation (ASO)



Area of safe operation, horizontal operation ASO

