

# 2SC5407

## Silicon NPN triple diffusion mesa type

For horizontal deflection output

### ■ Features

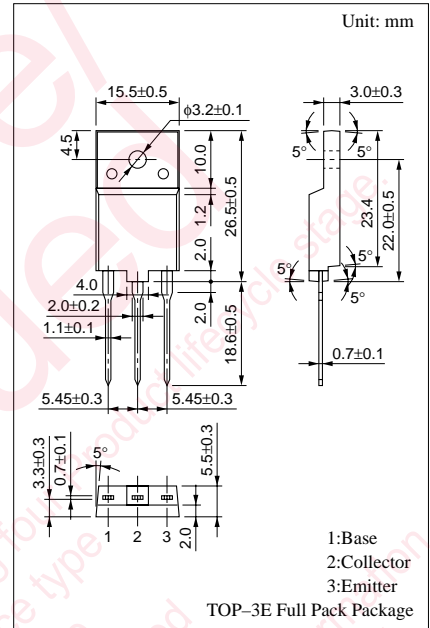
- High breakdown voltage, and high reliability through the use of a glass passivation layer
- High-speed switching
- Wide area of safe operation (ASO)

### ■ Absolute Maximum Ratings (T<sub>C</sub>=25°C)

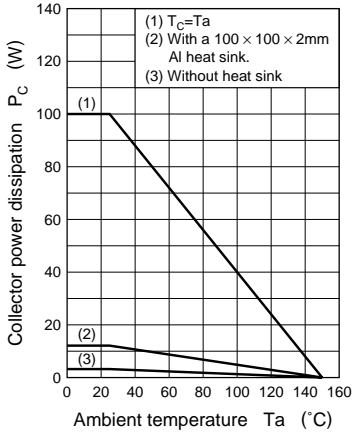
Parameter	Symbol	Rated Values	Unit	
Collector to base voltage	V <sub>CBO</sub>	1700	V	
Collector to emitter voltage	V <sub>CES</sub>	1700	V	
	V <sub>CEO</sub>	600	V	
Emitter to base voltage	V <sub>EBO</sub>	5	V	
Peak collector current	I <sub>CP</sub>	20	A	
Collector current	I <sub>C</sub>	15	A	
Base current	I <sub>B</sub>	8	A	
Collector power dissipation	P <sub>C</sub>	T <sub>C</sub> =25°C	100	W
		T <sub>a</sub> =25°C	3	
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)

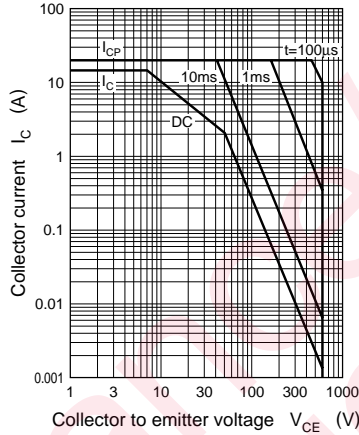
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> = 1000V, I <sub>E</sub> = 0			50	μA
		V <sub>CB</sub> = 1700V, I <sub>E</sub> = 0			1	mA
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = 5V, I <sub>C</sub> = 0			50	μA
Forward current transfer ratio	h <sub>FE</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 7.5A	6		14	
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 7.5A, I <sub>B</sub> = 1.88A			3	V
Base to emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 7.5A, I <sub>B</sub> = 1.88A			1.5	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 0, f = 0.5MHz		3		MHz
Storage time	t <sub>stg</sub>	I <sub>C</sub> = 8A, I <sub>B1</sub> = 2A, I <sub>B2</sub> = -4A			4.0	μs
Fall time	t <sub>f</sub>				0.3	μs



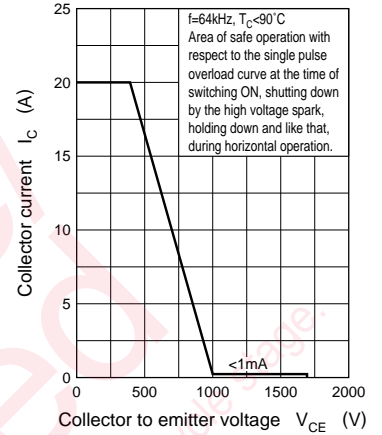
$P_C - T_a$



Area of safe operation (ASO)



Area of safe operation, horizontal operation ASO



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