Unit: mm

3.0±0.3

23.4

15.5+0.

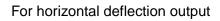
4.0

¢3.2±0.1

1.2

# 2SC5428

### Silicon NPN triple diffusion mesa type



#### Features

- High breakdown voltage, and high reliability through the use of a ٠ glass passivation layer
- High-speed switching
- Wide area of safe operation (ASO) •

Absolute Maximu	m Ratings	$(T_C = 25^{\circ}C)$		<u>2.0±0</u> <u>1.1±0</u>		2.0		/ 5
Parameter	Symbol	Ratings	Unit			Ψ		<u>.7±</u>
Collector to base voltage	V <sub>CBO</sub>	1500	V	5.45±0	0.3	5.45±0.3	All	
Collector to emitter voltage	V <sub>CES</sub>	1500	V	3.3±0.3 0.7±0.1	5°	5±0.3	Cho à	5
Collector to emitter voltage	V <sub>CEO</sub>	600	V	33			. Al	, Ť
Emitter to base voltage	V <sub>EBO</sub>	5	V	┝		9 0, 1	+. 1.	Ba
Peak collector current	I <sub>CP</sub>	30	A		65		2:	Co
Collector current	I <sub>C</sub>	25	A		Val.	TOP-	3: 3E Full Pacl	Em k Pa
Base current	I <sub>B</sub>	10	А			0	<u></u>	
Collector power $T_C = 25^{\circ}C$		100	W	2 3000				
dissipation Ta=25°C	P <sub>C</sub>	3.5	W .	N. C				
Junction temperature	Tj	150	°C	~ <u>~</u> ~				
Storage temperature	T <sub>stg</sub>	-55 to +150	°C	· .01				
			ing c	ò. <i>),</i>				
Electrical Charact	teristics (T <sub>c</sub>	=25°C)	NON NO.					
Deview star	0.0		CONTRACTO		and in	4		

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

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	T .	$V_{CB} = 1000V, I_E = 0$			50	μΑ
Conector cuton current	Чсво	$V_{CB} = 0500V, I_E = 0$			1	mA
Emitter cutoff current	I <sub>EBO</sub>	$V_{EB} = 5V, I_{C} = 0$			50	μΑ
Forward current transfer ratio	h <sub>FE</sub>	$V_{\rm CE} = 5V, I_{\rm C} = 12A$	7		14	
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	$I_{\rm C} = 12$ A, $I_{\rm B} = 3$ A			3	v
Base to emitter saturation voltage	V <sub>BE(sat)</sub>	$I_{\rm C} = 12$ A, $I_{\rm B} = 3$ A			1.5	v
Transition frequency	f <sub>T</sub>	$V_{CE} = 10V, I_{C} = 0.1A, f = 0.5MHz$		3		MHz
Storage time	t <sub>stg</sub>	$I_C = 12A, I_{B1} = 2.4A, I_{B2} = -4.8A$			4.0	μs

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