

# 2SC5244, 2SC5244A

## Silicon NPN triple diffusion mesa type

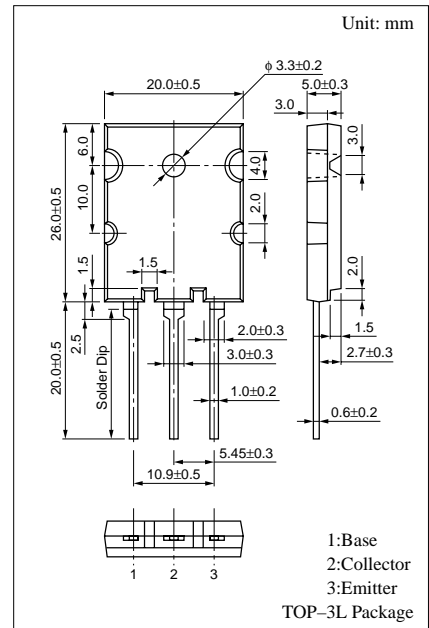
For horizontal deflection output

### ■ 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 ( $T_C=25^\circ\text{C}$ )

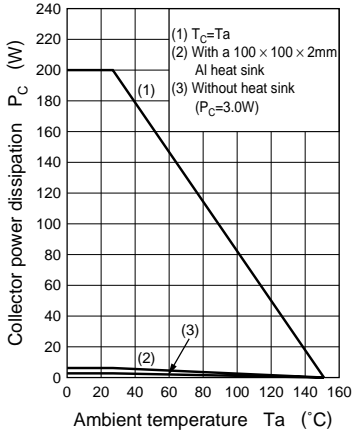
Parameter	Symbol	Rated	Unit
Collector to base voltage	$V_{\text{CBO}}$	1500	V
2SC5244A		1600	
Collector to emitter voltage	$V_{\text{CES}}$	1500	V
2SC5244A		1600	
Emitter to base voltage	$V_{\text{EBO}}$	6	V
Peak collector current	$I_{\text{CP}}$	20	A
Collector current	$I_{\text{C}}$	30	A
Collector power dissipation	$P_{\text{C}}$	200	W
$T_C=25^\circ\text{C}$ $T_a=25^\circ\text{C}$		3.5	
Junction temperature	$T_{\text{j}}$	150	$^\circ\text{C}$
Storage temperature	$T_{\text{stg}}$	-55 to +150	$^\circ\text{C}$



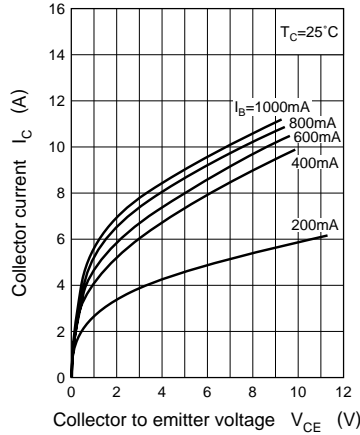
### ■ Electrical Characteristics ( $T_C=25^\circ\text{C}$ )

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	$I_{\text{CBO}}$	$V_{\text{CB}} = 1500\text{V}, I_{\text{E}} = 0$			1	mA
		$V_{\text{CB}} = 1600\text{V}, I_{\text{E}} = 0$			1	
Emitter cutoff current	$I_{\text{EBO}}$	$V_{\text{EB}} = 5\text{V}, I_{\text{C}} = 0$			50	$\mu\text{A}$
Forward current transfer ratio	$h_{\text{FE}}$	$V_{\text{CE}} = 5\text{V}, I_{\text{C}} = 10\text{A}$	5		12	
Collector to emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}} = 10\text{A}, I_{\text{B}} = 2.8\text{A}$			3	V
Base to emitter saturation voltage	$V_{\text{BE(sat)}}$	$I_{\text{C}} = 10\text{A}, I_{\text{B}} = 2.8\text{A}$			1.5	V
Transition frequency	$f_{\text{T}}$	$V_{\text{CE}} = 10\text{V}, I_{\text{C}} = 0.1\text{A}, f = 0.5\text{MHz}$		3		MHz
Storage time	$t_{\text{stg}}$	$I_{\text{C}} = 12\text{A}, I_{\text{B1}} = 2.4\text{A}, I_{\text{B2}} = -4.8\text{A}$		1.5	2.5	$\mu\text{s}$
Fall time		Resistance loaded		0.12	0.2	

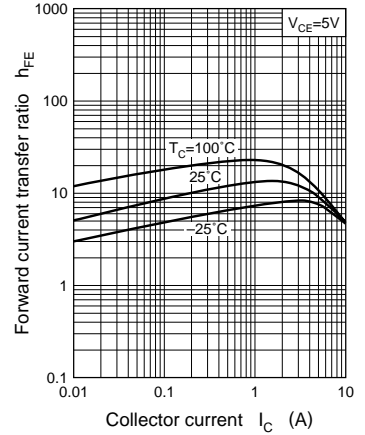
$P_C - T_a$



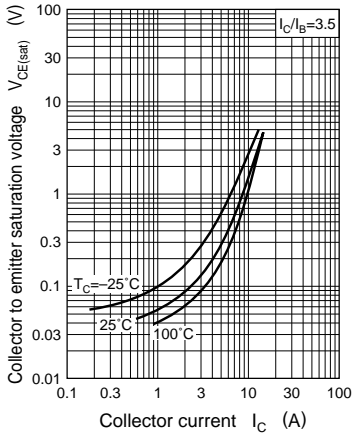
$I_C - V_{CE}$



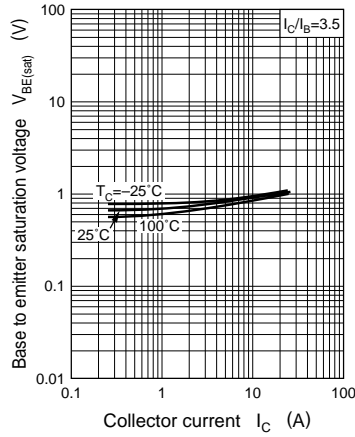
$h_{FE} - I_C$



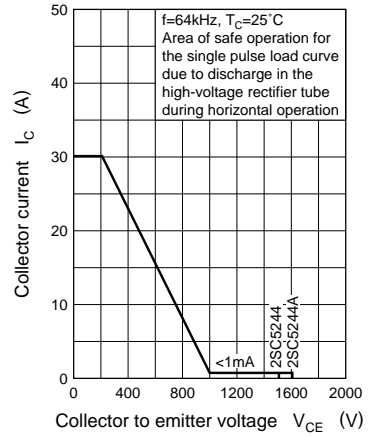
$V_{CE(sat)} - I_C$



$V_{BE(sat)} - I_C$



Area of safe operation, horizontal operation ASO



$R_{th(t)} - t$

