

# 2SD2466, 2SD2466A

Silicon NPN epitaxial planar type

For low-voltage switching

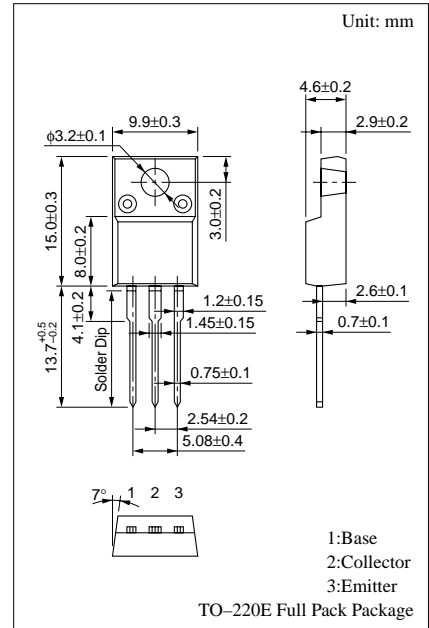
Complementary to 2SB1604

## Features

- Low collector to emitter saturation voltage  $V_{CE(sat)}$
- High-speed switching
- Full-pack package with outstanding insulation, which can be installed to the heat sink with one screw

## Absolute Maximum Ratings ( $T_C=25^\circ\text{C}$ )

Parameter	Symbol	Ratings	Unit
Collector to base voltage	2SD2466	40	V
	2SD2466A	50	
Collector to emitter voltage	2SD2466	20	V
	2SD2466A	40	
Emitter to base voltage	$V_{EBO}$	5	V
Peak collector current	$I_{CP}$	20	A
Collector current	$I_C$	10	A
Collector power dissipation	$T_C=25^\circ\text{C}$	40	W
	$T_a=25^\circ\text{C}$	2	
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$



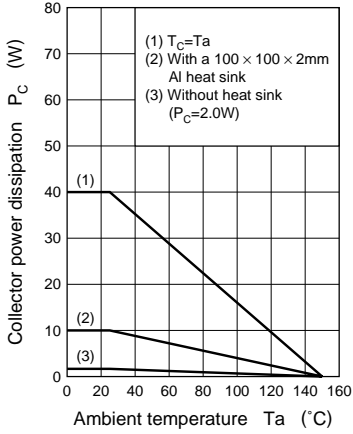
## Electrical Characteristics ( $T_C=25^\circ\text{C}$ )

Parameter	Symbol	Conditions	min	typ	max	Unit	
Collector cutoff current	2SD2466	$V_{CB} = 40\text{V}, I_E = 0$			50	$\mu\text{A}$	
	2SD2466A	$V_{CB} = 50\text{V}, I_E = 0$			50		
Emitter cutoff current	$I_{EBO}$	$V_{EB} = 5\text{V}, I_C = 0$			50	$\mu\text{A}$	
Collector to emitter voltage	2SD2466	$I_C = 10\text{mA}, I_B = 0$	20			V	
	2SD2466A		40				
Forward current transfer ratio	$h_{FE1}$	$V_{CE} = 2\text{V}, I_C = 0.1\text{A}$	45				
	$h_{FE2}^*$	$V_{CE} = 2\text{V}, I_C = 3\text{A}$	90		260		
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10\text{A}, I_B = 0.33\text{A}$			0.6	V	
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = 10\text{A}, I_B = 0.33\text{A}$			1.5	V	
Transition frequency	$f_T$	$V_{CE} = 10\text{V}, I_C = 0.5\text{A}, f = 10\text{MHz}$		120		MHz	
Collector output capacitance	$C_{ob}$	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$		200		pF	
Turn-on time	$t_{on}$	$I_C = 3\text{A}, I_{B1} = 0.1\text{A}, I_{B2} = -0.1\text{A}, V_{CC} = 20\text{V}$		0.3		$\mu\text{s}$	
Storage time	$t_{stg}$				0.4		$\mu\text{s}$
Fall time	$t_f$				0.1		$\mu\text{s}$

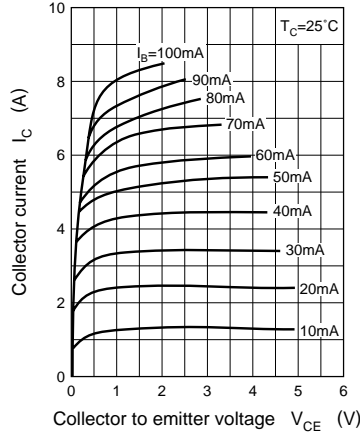
\* $h_{FE2}$  Rank classification

Rank	Q	P
$h_{FE2}$	90 to 180	130 to 260

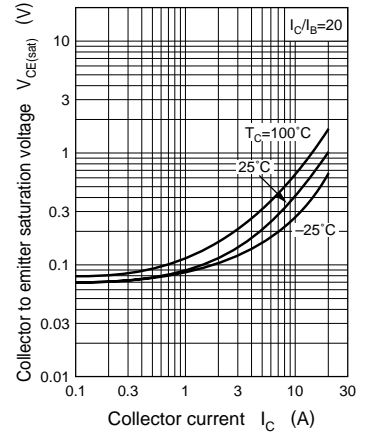
$P_C - T_a$



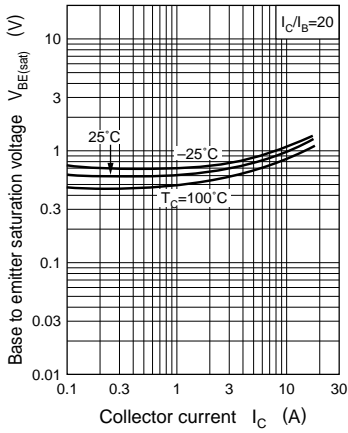
$I_C - V_{CE}$



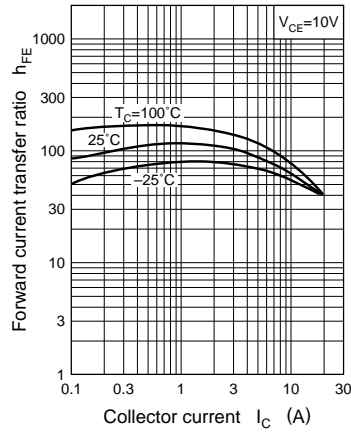
$V_{CE(sat)} - I_C$



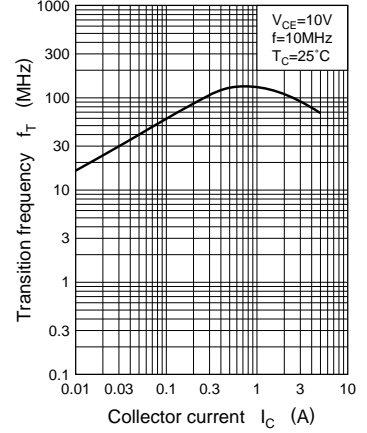
$V_{BE(sat)} - I_C$



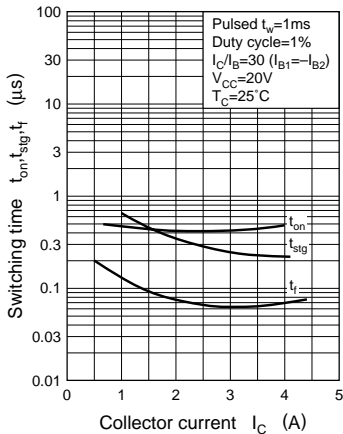
$h_{FE} - I_C$



$f_T - I_C$



$t_{on}, t_{stg}, t_f - I_C$



Area of safe operation (ASO)

