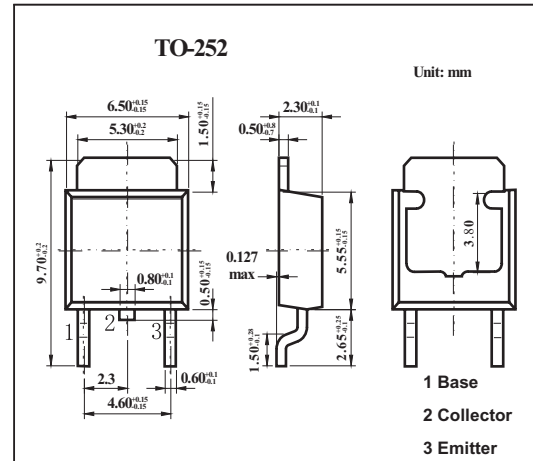


# 2SC3072

### ■ Features

- High DC current gain.
- Low collector saturation voltage.
- High power dissipation.



### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	50	V
Collector-emitter voltage	$V_{CEO}$	20	V
Emitter-base voltage	$V_{EBO}$	8	V
Collector current	$I_C$	5	A
Collector current pulse *	$I_{CP}$	8	A
Base current	$I_B$	0.5	A
Collector power dissipation $T_a = 25^\circ\text{C}$	$P_C$	1.0	W
$T_c = 25^\circ\text{C}$		10	W
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

\* Pulse test: Pulse width = 10 ms (max), duty cycle = 30% (max)

### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cut-off current	$I_{CBO}$	$V_{CB} = 20\text{ V}, I_E = 0$			100	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 8\text{ V}, I_C = 0$			100	nA
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10\text{ mA}, I_B = 0$	20			V
DC current gain	$h_{FE}$	$V_{CE} = 2\text{ V}, I_C = 0.5\text{ A}$	140		450	
		$V_{CE} = 2\text{ V}, I_C = 4\text{ A}$	70			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 4\text{ A}, I_B = 0.1\text{ A}$			1.0	V
Base-emitter voltage	$V_{BE}$	$V_{CE} = 2\text{ V}, I_C = 4\text{ A}$			1.5	V
Transition frequency	$f_T$	$V_{CE} = 2\text{ V}, I_C = 0.5\text{ A}$		100		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$		40		pF

### ■ $h_{FE}$ Classification

Marking	C3072		
Rank	A	B	C
$h_{FE}$	140~240	200~330	300~450