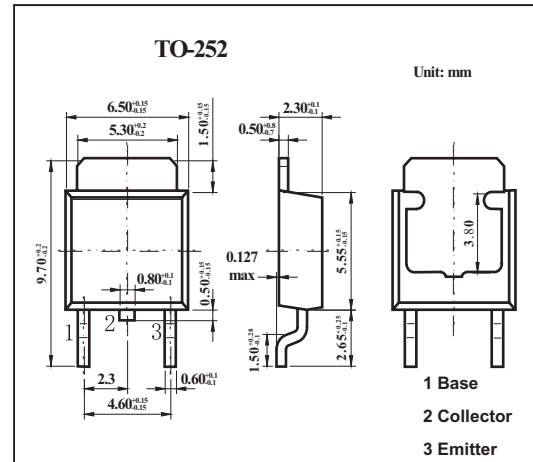


## 2SA1385-Z

### ■ Features

- Low  $V_{CE(sat)}$ :  $V_{CE(sat)} = -0.18$  V TYP.



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	-60	V
Collector-emitter voltage	$V_{CEO}$	-60	V
Emitter-base voltage	$V_{EBO}$	-7	V
Collector current	$I_C$	-5	A
Collector current pulse *	$I_{CP}$	-7	A
Total power dissipation	$P_T$	10	W
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

\*  $PW \leq 10\text{ms}$ , duty cycle  $\leq 50\%$ .

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cut-off current	$I_{CBO}$	$V_{CB} = -50$ V, $I_E = 0$			-10	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -7$ V, $I_C = 0$			-10	$\mu\text{A}$
DC current gain *	$h_{FE}$	$V_{CE} = -1$ V, $I_C = -2$ A	100	200	400	
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = -2$ A, $I_B = -0.2$ A		-0.18	-0.3	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C = -2$ A, $I_B = -0.2$ A			-1.2	V
Gain bandwidth product	$f_T$	$V_{CE} = -10$ V, $I_C = -0.5$ A		140		MHz
Turn-on time	$t_{on}$	$I_C = -2$ A, $I_{B1} = -I_{B2} = -0.2$ A, $R_L = 50\Omega$ , $V_{CC} = -10$ V		0.08	1.0	$\mu\text{s}$
Storage time	$t_{stg}$			0.55	2.5	$\mu\text{s}$
Fall time	$t_f$			0.18	1.0	$\mu\text{s}$

\*  $PW \leq 350\mu\text{s}$ , duty cycle  $\leq 2\%$ .

### ■ $h_{FE}$ Classification

Marking	M	L	K
$h_{FE}$	100~200	160~320	200~400