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# 2SC1515(K)

Silicon NPN Triple Diffused

# HITACHI

ADE-208-1055 (Z)  
1st. Edition  
Mar. 2001

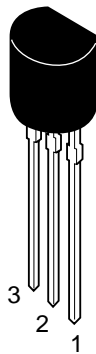
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## Application

High voltage switching

## Outline

TO-92 (1)



1. Emitter
2. Collector
3. Base

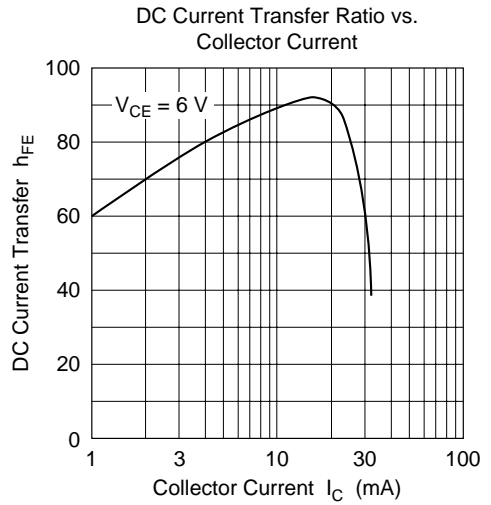
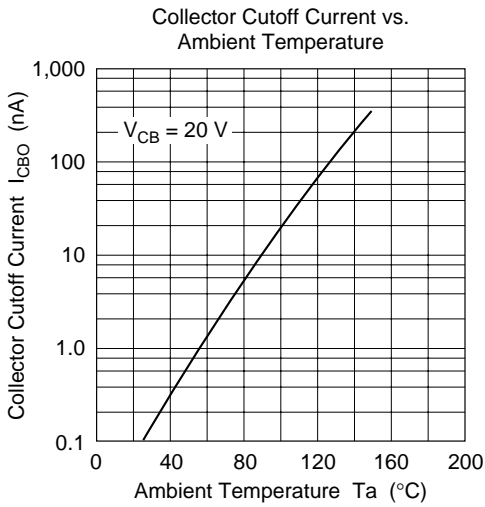
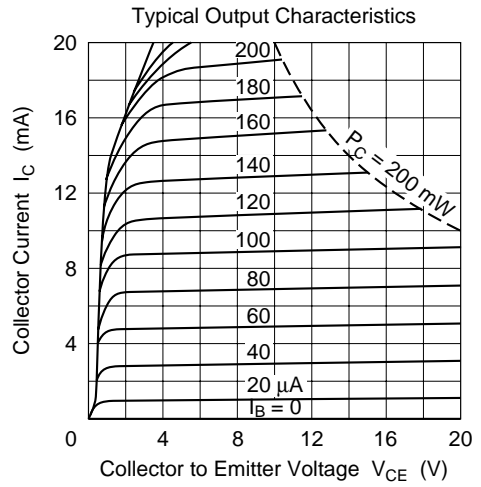
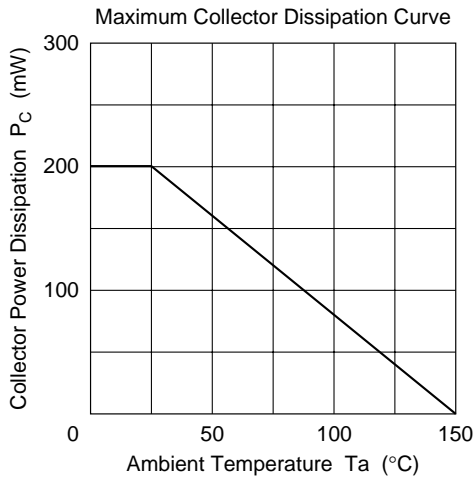
## 2SC1515 (K)

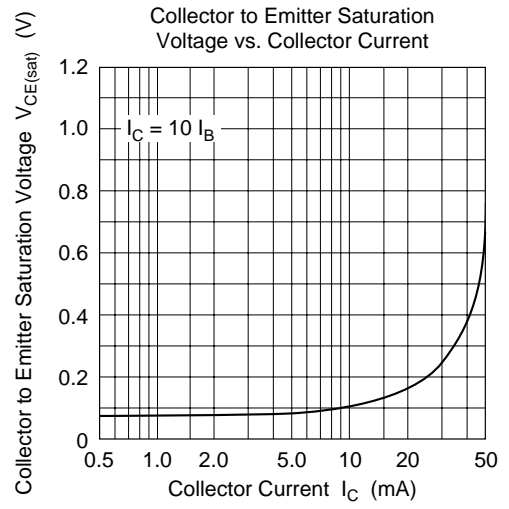
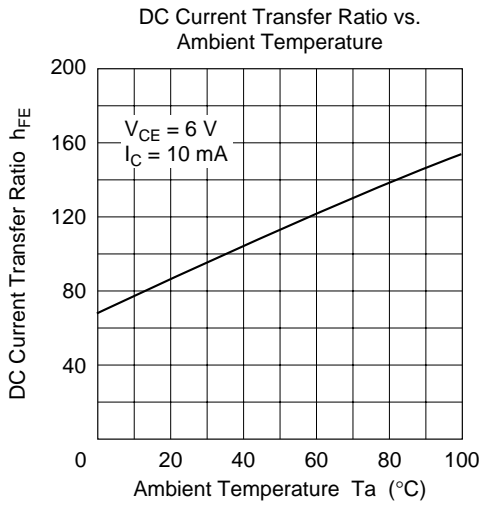
### Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	200	V
Collector to emitter voltage	$V_{CES}$	200	V
	$V_{CEO}$	150	V
Emitter to base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	50	mA
Collector power dissipation	$P_C$	200	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

### Electrical Characteristics (Ta = 25°C)

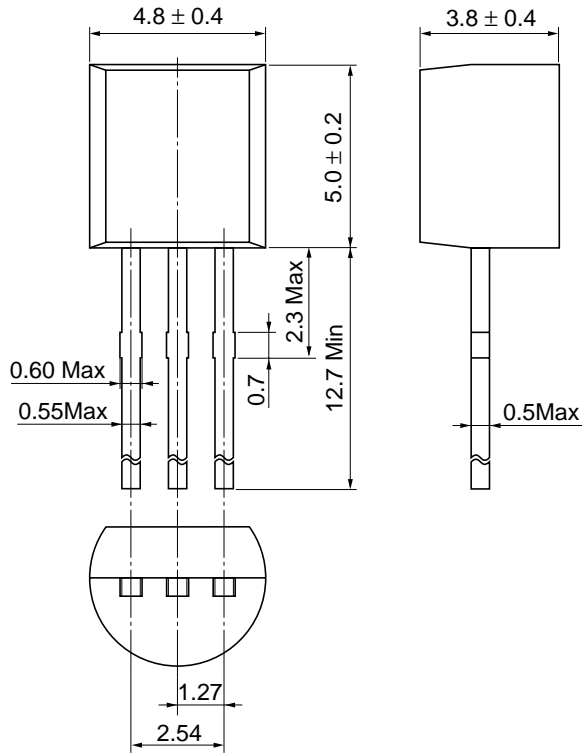
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(BR)CES}$	200	—	—	V	$I_C = 10 \mu A, R_{BE} = 0$
	$V_{(BR)CEO}$	150	—	—	V	$I_C = 1 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	$I_E = 10 \mu A, I_C = 0$
Collector cutoff current	$I_{CBO}$	—	—	0.1	$\mu A$	$V_{CB} = 20 \text{ V}, I_E = 0$
DC current transfer ratio	$h_{FE}$	30	—	300		$V_{CE} = 6 \text{ V}, I_C = 10 \text{ mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	1.0	V	$I_C = 10 \text{ mA}, I_B = 1 \text{ mA}$
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	1.5	V	$I_C = 10 \text{ mA}, I_B = 1 \text{ mA}$
Gain bandwidth product	$f_T$	60	—	—	MHz	$V_{CE} = 6 \text{ V}, I_C = 10 \text{ mA}$
Collector output capacitance	$C_{ob}$	—	—	10	pF	$V_{CB} = 6 \text{ V}, I_E = 0, f = 1 \text{ MHz}$





Package Dimensions

As of January, 2001  
Unit: mm



Hitachi Code	TO-92 (1)
JEDEC	Conforms
EIAJ	Conforms
Mass (reference value)	0.25 g

## Cautions

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