
2SC1515(K)

Silicon NPN Triple Diffused

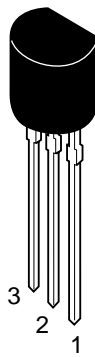
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Application

High voltage switching

Outline

TO-92 (1)



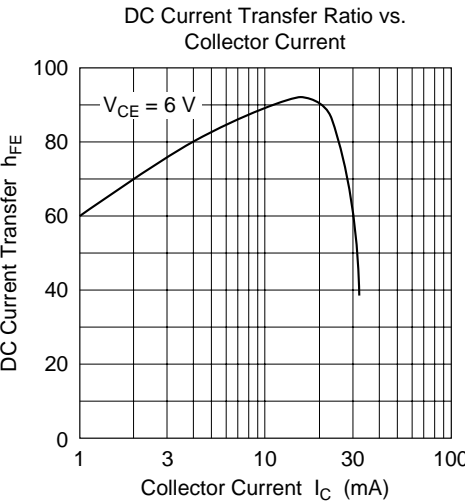
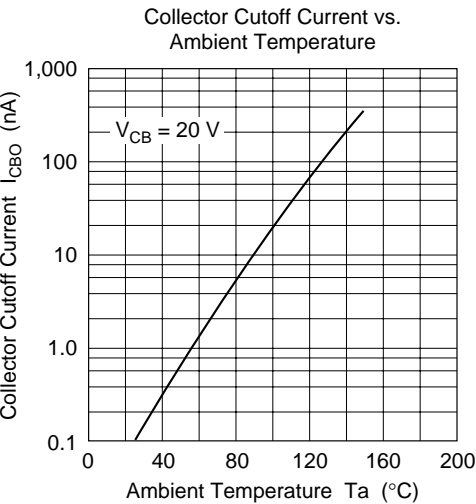
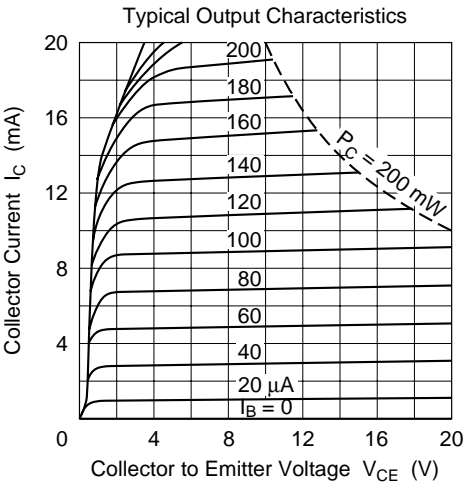
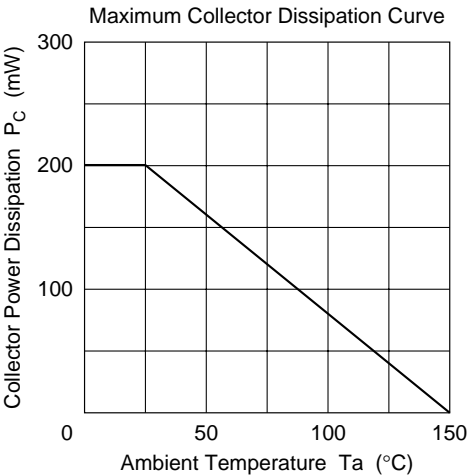
- 1. Emitter
- 2. Collector
- 3. Base

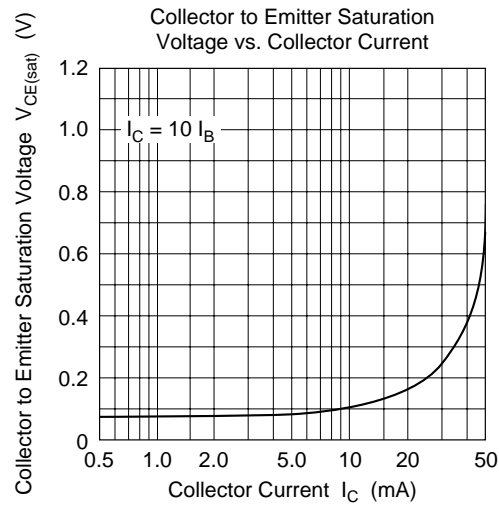
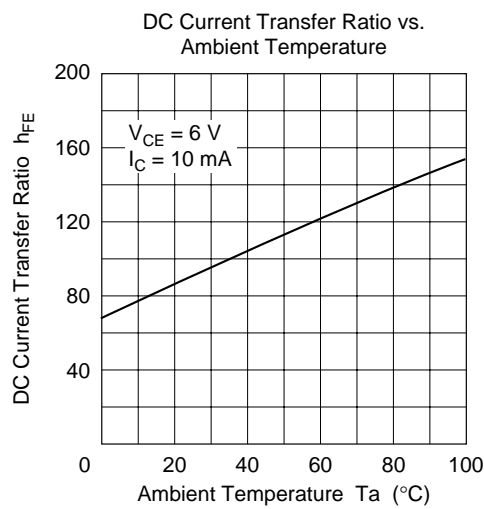
Absolute Maximum Ratings (Ta = 25°C)

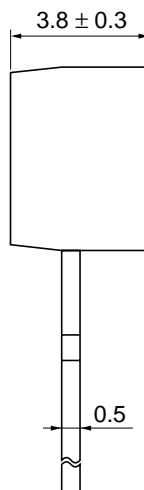
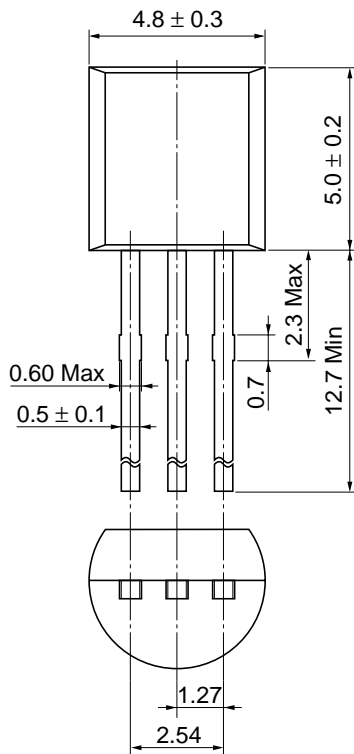
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	200	V
Collector to emitter voltage	V_{CES}	200	V
	V_{CEO}	150	V
Emitter to base voltage	V_{EBO}	5	V
Collector current	I_C	50	mA
Collector power dissipation	P_C	200	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(BR)CES}$	200	—	—	V	$I_C = 10\text{ }\mu\text{A}$, $R_{BE} = 0$
	$V_{(BR)CEO}$	150	—	—	V	$I_C = 1\text{ mA}$, $R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	$I_E = 10\text{ }\mu\text{A}$, $I_C = 0$
Collector cutoff current	I_{CBO}	—	—	0.1	μA	$V_{CB} = 20\text{ V}$, $I_E = 0$
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	$V_{CB} = 6\text{ V}$, $I_E = 0$, $f = 1\text{ MHz}$







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

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