

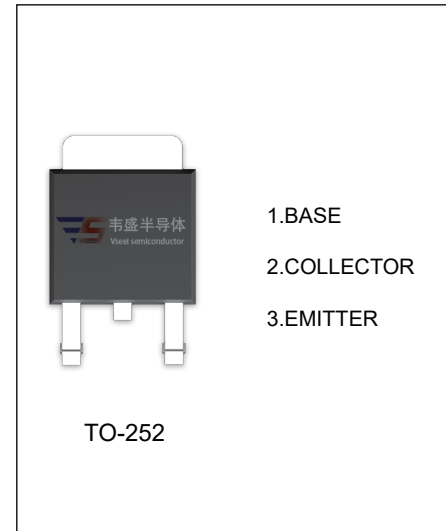
## 3DA752 TRANSISTOR (NPN)

### FEATURES

- Power Dissipation

### MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V <sub>CB0</sub>	Collector-Base Voltage	40	V
V <sub>CE0</sub>	Collector-Emitter Voltage	30	V
V <sub>EB0</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current -Continuous	2	A
P <sub>C</sub>	Collector power dissipation	1.2	W
T <sub>J</sub> , T <sub>stg</sub>	Operation Junction and Storage Temperature Range	-55-150	°C



### ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)

Parameter	Symbol	T est conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =100μA, I <sub>E</sub> =0	40			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =0	30			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =1mA, I <sub>C</sub> =0	5			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =40V, I <sub>E</sub> =0			0.1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0			0.1	μA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> =2V, I <sub>C</sub> =500mA	100		400	
Collector-emitter saturation voltage	V <sub>CE(sat)1</sub>	I <sub>C</sub> =2A, I <sub>B</sub> =0.2A			0.8	V
	V <sub>CE(sat)2</sub>	I <sub>C</sub> =1.5A, I <sub>B</sub> =30mA			2	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> =500mA		120		MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz	13			pF

### CLASSIFICATION OF h<sub>FE</sub>

Rank	O	Y	G
Range	100-200	160-320	200- 400