3DA752 TRANSISTOR (NPN)

1.BASE
2.COLLECTOR
3.EMITTER

TO-252

FEATURES

- Power Dissipation

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	2	A
P_C	Collector power dissipation	1.2	W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55-150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	T est conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=10mA,I_B=0	30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=1mA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=40V,I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V,I_C=0			0.1	μA
DC current gain	h_{FE}	V_{CE}=2V,I_C=500mA	100		400	
Collector-emitter saturation voltage	$V_{CE(sat)1}$	I_C=2A,I_B=0.2A			0.8	V
	$V_{CE(sat)2}$	I_C=1.5A,I_B=30mA			2	V
Transition frequency	f_T	V_{CE}=5V,I_C=500mA		120		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0,f=1MHz	13			pF

CLASSIFICATION OF h_{FE}

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