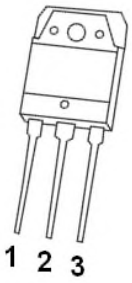
TO-3P Plastic-Encapsulate Transistors

3DA5200B TRANSISTOR (NPN)

TO – 3P

1. BASE
2. COLLECTOR
3. EMITTER



FEATURES

- High Breakdown Voltage
- High Current and Power Capacity

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	160	V
V_{CEO}	Collector-Emitter Voltage	160	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	15	A
P_C	Collector Power Dissipation	3	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	42	℃/W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0 160				V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=50mA,I_B=0 160				V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0 5				V
Collector cut-off current	I_{CBO} V	$_{CB}$=160V,I_E=0			5	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V,I_C=0			5	μA
DC current gain	$h_{FE(1)}$	V_{CE}=5V, I_C=1A 55			160	
	$h_{FE(2)}$ V	$_{CE}$=5V, I_C=7A 35				
Collector-emitter saturation voltage	$V_{CE(sat)}$ I	$_C$=8A,I_B=800mA			3	V
Base-emitter voltage	V_{BE} V	$_{CE}$=5V, I_C=7A			1.5	V
Collector output capacitance	C_{ob} V	$_{CB}$=10V,I_E=0, f=1MHz	360			pF
Transition frequency	f_T V	$_{CE}$=5V,I_C=1A		30		MHz

CLASSIFICATION OF $h_{FE(1)}$

RANK	R	O
RANGE	55-110	80-160