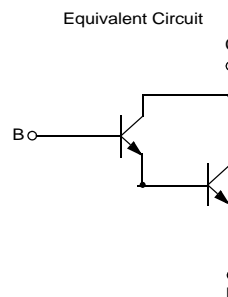
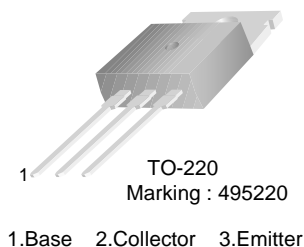


# 495220

## NPN Epitaxial Silicon Darlington Transistor

High Voltage & Medium Power Linear Application



### Absolute Maximum Ratings \* $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
$BV_{CBO}$	Collector-Base Voltage	550	V
$BV_{CEO}$	Collector-Emitter Voltage	325	V
$BV_{EBO}$	Emitter-Base Voltage	10	V
$I_C$	Collector Current (DC)	4	A
$I_{CP}$	Collector Current (Pulse)**	6	A
$I_B$	Base Current (DC)	0.5	A
$P_C$	Collector Dissipation( $T_C=25^\circ\text{C}$ )	40	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Junction Temperature Range	- 55 ~ 150	$^\circ\text{C}$

\* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

\*\* Pulse Test : Pulse Width  $\leq 5\text{ms}$ , Duty Cycle  $\leq 10\%$

### Electrical Characteristics \* $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$BV_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=1.5\text{A}$ , $I_B = 0.05\text{A}$ , $L = 25\text{mH}$	250			V
$I_{CBO}$	Collector Cut-off Current	$V_{CB} = 550\text{V}$ , $I_E = 0$			5	mA
$I_{EBO}$	Emitter Cut-off Current	$V_{EB}=10\text{V}$ , $I_C=0$			1	mA
$h_{FE}$	DC Current Gain	$V_{CE}=5\text{V}$ , $I_C=0.5\text{A}$ $V_{CE}=5\text{V}$ , $I_C=3.0\text{A}$	5000 1000			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 0.75\text{A}$ , $I_B = 0.17\text{A}$ $I_C = 2\text{A}$ , $I_B = 5\text{mA}$			1.7 1.5	V V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 2\text{A}$ , $I_B = 5\text{mA}$			2	V

\* Pulse Test : Pulse Width  $\leq 5\text{ms}$ , Duty Cycle  $\leq 10\%$



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