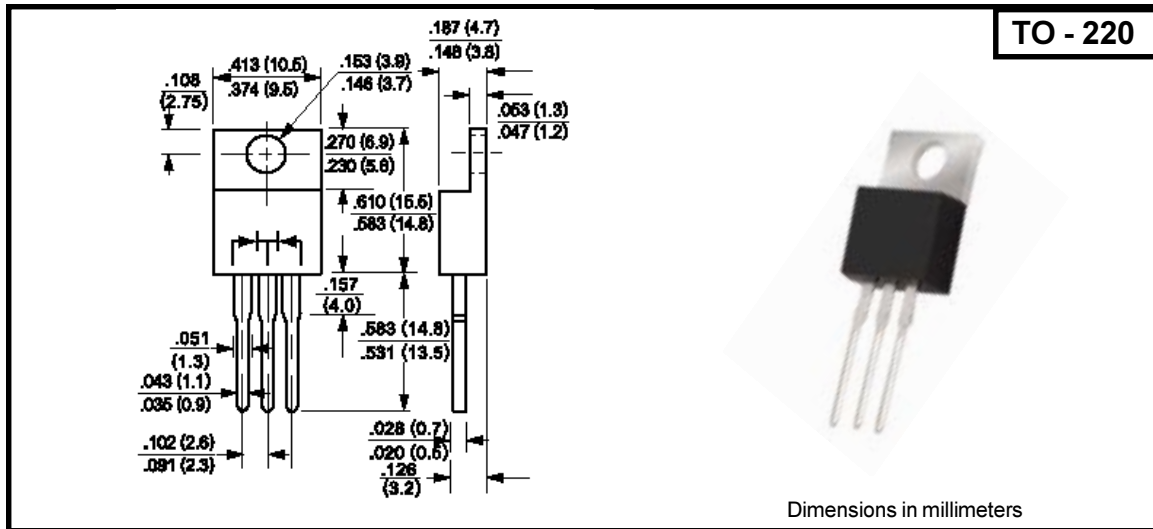


**TO-220 - PNP Plastic Power Transistors**

**Absolute Max. Ratings (Ta=25oC)**

	Symbol		Ratings	Unit
Collector-base voltage (open emitter)	$V_{CBO}$	max.	60	V
Collector-emmitor voltage (open base)	$V_{CEO}$	max.	60	V
Collector current	$I_C$	max.		A
Total Power Dissipation up to $T_C = 25\text{ }^\circ\text{C}$	$P_{tot}$	max.		W
Junction Temperature	$T_j$	max.		$^\circ\text{C}$
Collector-emitter saturation voltage $I_C = 3\text{A}; I_B = 12\text{mA}$	$V_{CE(sat)}$	max.		V
D.C. current gain $I_C = 0.5\text{A}; V_{CE} = 3\text{V}$	$h_{FE}$	min		K

**Chara. Ratings (at Ta = 25°C unless otherw ise specified)**

	Symbol		Ratings	Unit
Collector-base voltage (open emitter)	$V_{CBO}$	max.	60	V
Collector-emitter voltage (open base)	$V_{CEO}$	max.	60	V
Emitter-base voltage (open collector)	$V_{EBO}$	max.		V
Collector current	$I_C$	max.	5	A
Collector current (peak)	$I_{CM}$	max.	8	A
Base current	$I_B$	max.	120	mA
Total power dissipation up to $TC = 25^\circ\text{C}$	$P_{TOT}$	max.	65	W
Debrate above $25^\circ\text{C}$		max.	0.52	$\text{W} / ^\circ\text{C}$
Total power dissipation up to $TA = 25\text{ }^\circ\text{C}$	$P_{TOT}$	max.	2	W
Debrate above $25^\circ\text{C}$		max.	0.016	$\text{W} / ^\circ\text{C}$
Storage temperature	$T_{STG}$	max.	-65 to +150	$^\circ\text{C}$
Junction temperature	$T_J$	max.	150	$^\circ\text{C}$

**Chara. Ratings** (at  $T_a = 25^\circ\text{C}$  unless otherwise specified)

Chara. Ratings (at $T_a = 25^\circ\text{C}$ unless otherwise specified)	Symbol		Ratings	Unit
Collector cutoff current $I_E = 0; V_{CB} = 60\text{ V}$	$I_{CBO}$	max.	0.2	mA
$I_E = 0; V_{CB} = 80\text{ V}$	$I_{CBO}$	max.		
$I_E = 0; V_{CB} = 100\text{ V}$	$I_{CBO}$	max.		
$I_B = 0; V_{CE} = 30\text{ V}$	$I_{CEO}$	max.	0.5	mA
$I_B = 0; V_{CE} = 40\text{ V}$	$I_{CEO}$	max.		
$I_B = 0; V_{CE} = 50\text{ V}$	$I_{CEO}$	max.		
Emitter cut-off current $I_C = 0; V_{EB} = 5\text{ V}$	$I_{EBO}$	max.	2	mA
Breakdown Voltages $I_C = 100\text{ mA}; I_B = 0$	$V_{CEO(sus)}^*$	min.	60	V
$I_C = 1\text{ mA}; I_E = 0$	$V_{CBO}$	min.	60	V
$I_E = 1\text{ mA}; I_C = 0$	$V_{EBO}$	min.		V
Saturation Voltages $I_C = 3.0\text{ A}; I_{EB} = 12\text{ mA}$	$V_{CEsat}^*$	max.	2	V
$I_C = 5.0\text{ A}; I_{EB} = 20\text{ mA}$	$V_{CEsat}^*$	max.	4	V
Base-emitter on voltage $I_C = 3\text{ A}; V_{CE} = 3\text{ V}$	$V_{BE(on)}^*$	max.	2.5	V
D.C. current gain $I_C = 0.5\text{ A}; V_{CE} = 3\text{ V}$	$h_{FE}^*$	min.	1	K
$I_C = 3\text{ A}; V_{CE} = 3\text{ V}$	$h_{FE}^*$	min.	1	K
Small signal current gain $I_C = 3.0\text{ A}; V_{CE} = 4\text{ V}; f = 1\text{ MHz}$	$h_{FE}$	min.	4	
Output Capacitance at $f = 0.1\text{ MHz}$ $I_E = 0; V_{CB} = 10\text{ V}$	$C_O$	max.	300	pF

\*Pulse test: pulse width  $\leq 300\ \mu\text{s}$ ; duty cycle  $\leq 2\%$ **THERMAL RESISTANCE**

From junction to ambient	$R_{th\ j-a}$		62.5	$^\circ\text{C} / \text{W}$
From junction to case	$R_{th\ j-c}$		1.92	$^\circ\text{C} / \text{W}$

**RECTRON**