

ELECTRICAL CHARACTERISTICS 25°C

TEST	SYMBOL	LIMITS						UNITS	TEST CONDITIONS
		PT502		PT501		PT500			
		MIN.	MAX.	MIN.	MAX.	MIN.	MAX.		
D.C. Current Gain*	h_{FE}	10	40	10	40	10	40	-	$I_C = 50A, V_{CE} = 2V$
D.C. Current Gain*	h_{FE}	5	-	5	-	5	-	-	$I_C = 100A, V_{CE} = 4V$
Collector Saturation Voltg.*	$V_{CE(sat)}$	-	0.60	-	0.60	-	0.60	V	$I_C = 50A, I_B = 5A$
Collector Saturation Voltg.*	$V_{CE(sat)}$	-	1.5	-	1.5	-	1.5	V	$I_C = 100A, I_B = 20A$
Base Emitter Voltage*	V_{BE}	-	1.2	-	1.2	-	1.2	V	$I_C = 50A, V_{CE} = 2V$
Base Emitter Voltage*	V_{BE}	-	2.5	-	2.5	-	2.5	V	$I_C = 100A, V_{CE} = 4V$
Collector-Emitter Voltage*	$V_{CEO(sus)}$	100	-	120	-	150	-	V	$I_C = 200mA, I_B = 0$
Collector Cutoff Current	I_{CBO}	-	2	-	-	-	-	mA	$V_{CB} = 120V, I_{EB} = 0$
Collector Cutoff Current	I_{CBO}	-	-	-	2	-	-	mA	$V_{CB} = 150V, I_{EB} = 0$
Collector Cutoff Current	I_{CBO}	-	-	-	-	-	2	mA	$V_{CB} = 175V, I_{EB} = 0$
Collector Cutoff Current @ 150°C	I_{CBO}	-	10	-	10	-	10	mA	$V_{CB} = 100V, I_{EB} = 0$
Emitter Cutoff Current	I_{EBO}	-	1	-	1	-	1	mA	$V_{EB} = 10V, I_{CB} = 0$
Gain Bandwidth Product (Typ.)	f_t	1	-	1	-	1	-	MHz	$I_C = 5A, V_{CE} = 10V, f = 100KHz$
Collector Capacitance	C_{obo}	-	1800	-	1800	-	1800	pf.	$V_{CB} = 10V, f = 100KHz$
Switching Speed (Typ.) (PowerTech Test Circuit)	t_r	-	2.5	-	2.5	-	2.5	μsec	$I_C = 50A$
	t_s	-	3	-	3	-	3	μsec	
	t_f	-	2.5	-	2.5	-	2.5	μsec	$I_{B1} = 10A, -I_{B2} = 5A$

* $t_r < 300 \mu sec$ Pulse 2% Duty Cycle

