

**Silicon PNP transistor epitaxial type  
AP884**

**[ Applications ]**

High voltage switching and amplifier

**[ Feature ]**

High voltage  $V_{CE0} = -500V$

Excellent hFE characteristics up to  $I_C = -150mA$

Low collector saturation voltage  $V_{CE(sat)} = -0.5V$  (Max.) at  $I_C = -50mA$ ,  $I_B = -10mA$

**[ Absolute maximum ratings (Ta=25C) ]**

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	-500	V
Collector-emitter voltage	VCEO	-500	V
Emitter-base voltage	VEBO	-5	V
Collector current	IC	-150	mA
Collector current (pulse)	ICP	-500	mA
Junction temperature	Tj	150	C
Storage temperature	Tstg	-55 to 150	C

**[ Electrical characteristics (Ta=25C) ]**

Characteristic	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BVCBO	-500	-	-	V	$I_C = -100\mu A$
Collector-emitter breakdown voltage	BVCEO	-500	-	-	V	$I_C = -10mA$
Emitter-base breakdown voltage	BVEBO	-5	-	-	V	$I_E = -100\mu A$
Collector cut-off current	ICBO	-	-	-100	nA	$V_{CB} = -500V$
Collector cut-off current	ICES	-	-	-100	nA	$V_{CES} = -500V$
Emitter cut-off current	IEBO	-	-	-100	nA	$V_{EB} = -5V$
DC current gain 1	hFE 1	150	-	300	-	$V_{CE} = -10V$ , $I_C = -1mA$
DC current gain 2	hFE 2	80	-	300	-	$V_{CE} = -10V$ , $I_C = -50mA$
DC current gain 3	hFE 3		15	-	-	$V_{CE} = -10V$ , $I_C = -100mA$
Collector-emitter saturation voltage 1	$V_{CE(sat)1}$	-	-	-0.2	V	$I_C = -20mA$ , $I_B = -2mA$
Collector-emitter saturation voltage 2	$V_{CE(sat)2}$	-	-	-0.5	V	$I_C = -50mA$ , $I_B = -10mA$
Base-emitter saturation voltage	$V_{BE(sat)}$	-	-	-0.9	V	$I_C = -50mA$ , $I_B = -10mA$
Base-emitter on voltage	$V_{BE(on)}$	-	-	-0.9	V	$V_{CE} = -10V$ , $I_C = -50mA$
Transition frequency	fT	50	-	-	MHz	$V_{CE} = -20V$ , $I_E = 10mA$
Collector output capacitance	Cob	-	-	8	pF	$V_{CB} = -20V$ , $f = 1MHz$ , $I_E = 0A$
Turn on time	ton	-	110	-	ns	$V_{CE} = -100V$ , $I_C = -50mA$
Turn off time	toff	-	1500	-	ns	$I_{B1} = -5mA$ , $I_{B2} = 10mA$

Notice 1) These are measured data of transistors assembled by PHENITEC SEMICONDUCTOR Corp. and are for reference only.

Notice 2) The contents described herein are subject to change without notice.

