

Silicon PNP transistor epitaxial type
A5914

[Applications]

High speed switching
DC-DC convertor
Strobe flash

[Feature]

High DC gain $h_{FE} = 200-500$ at $V_{CE} = -2V$, $I_C = -0.3A$
Low collector saturation voltage $V_{CE(sat)} = -0.2V$ (Max.) at $I_C = -1A$, $I_B = -33mA$
High speed switching time $t_f = 90ns$ (Typ.) at $V_{CC} = -30V$, $I_C = -1A$, $I_B = -33mA$

[Absolute maximum ratings (Ta=25C)]

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	-50	V
Collector-emitter voltage	VCEO	-50	V
Emitter-base voltage	VEBO	-7	V
Collector current (DC)	IC	-2	A
Collector current (Pulse)	ICP	-3.5	A
Base current	IB	-0.2	A
Junction temperature	Tj	150	C
Storage temperature	Tstg	-55 to 150	C

[Electrical characteristics (Ta=25C)]

Characteristic	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	BVCEO	-50	-	-	V	$I_C = -10mA$, $I_B = 0A$
Collector cut-off current	ICBO	-	-	-100	nA	$V_{CB} = -50V$, $I_E = 0A$
Emitter cut-off current	IEBO	-	-	-100	nA	$V_{EB} = -7V$, $I_C = 0A$
DC current gain 1	h_{FE1}	200	-	500	-	$V_{CE} = -2V$, $I_C = -0.3A$
DC current gain 2	h_{FE2}	100	-	-	-	$V_{CE} = -2V$, $I_C = -1A$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	-0.2	V	$I_C = -1A$, $I_B = -33mA$
Base-emitter saturation voltage	$V_{BE(sat)}$	-	-	-1.1	V	$I_C = -1A$, $I_B = -33mA$
Transition frequency	fT	-	180	-	MHz	$V_{CE} = -2V$, $I_E = 0.3A$
Collector output capacitance	Cob	-	20	-	pF	$V_{CB} = -10V$, $f = 1MHz$, $I_E = 0A$
Turn on time	ton	-	60	-	ns	$V_{CC} = -30V$, $I_C = -1A$
Storage time	tstg	-	250	-	ns	$-I_{B1} = I_{B2} = 33mA$
Fall time	tf	-	90	-	ns	

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.

