

**Silicon NPN transistor epitaxial type (darlington)
D5918**

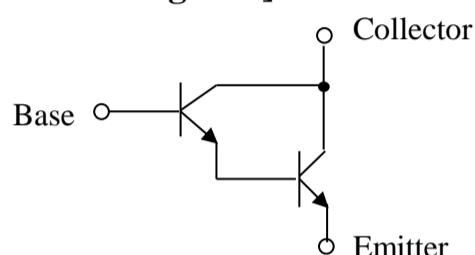
[Applications]

Motor driver

[Feature]

Darlington connection for a high hFE hFE=3k(min.) at VCE= 5V, IC= 160mA
High input impedance

[Circuit diagram]



[Absolute maximum ratings (Ta=25C)]

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	200	V
Collector-emitter voltage	VCES	200	V
Emitter-base voltage	VEBO	10	V
Collector current	IC	600	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	200	-	-	V	IC= 100uA
Collector-emitter breakdown voltage	BVCES	200	-	-	V	IC= 1mA
Emitter-base breakdown voltage	BVEBO	10	-	-	V	IE= 100uA
Collector cut-off current	ICBO	-	-	500	nA	VCB= 180V
Emitter cut-off current	IEBO	-	-	100	nA	VEB= 10V
DC current gain 1	hFE 1	3k	-	-	-	VCE= 5V, IC= 100uA
DC current gain 2	hFE 2	3k	-	-	-	VCE= 5V, IC= 10mA
DC current gain 3	hFE 3	3k	-	-	-	VCE= 5V, IC= 160mA
Collector-emitter saturation voltage 1	VCE(sat) 1	-	-	0.9	V	IC= 20mA, IB= 25uA
Collector-emitter saturation voltage 2	VCE(sat) 2	-	-	1.1	V	IC= 80mA, IB= 40uA
Collector-emitter saturation voltage 3	VCE(sat) 3	-	-	1.2	V	IC= 160mA, IB= 100uA
Base-emitter on voltage	VBE(on)	-	-	2	V	VCE= 5V, IC= 160mA
Transition frequency	fT	-	60	-	MHz	VCE= 5V, IE= -10mA
Collector output capacitance	Cob	-	5	-	pF	VCB= 10V, f = 1MHz, IE= 0A

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.

