

**Silicon NPN transistor epitaxial type (darlington)
D5025**

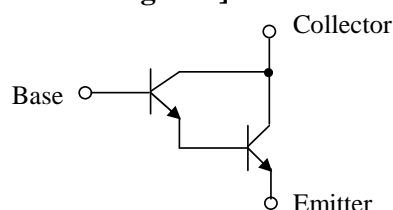
[Applications]

Motor driver

[Feature]

Darlington connection for a high hFE hFE= 18k(min.) at VCE= 5V, IC= 100mA
High input impedance

[Circuit diagram]



[Absolute maximum ratings (Ta=25C)]

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	40	V
Collector-emitter voltage	VCEO	30	V
Emitter-base voltage	VEBO	10	V
Collector current	IC	300	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	40	-	-	V	IC= 100uA
Collector-emitter breakdown voltage	BVCEO	30	-	-	V	IC= 1mA
Emitter-base breakdown voltage	BVEBO	10	-	-	V	IE= 100uA
Collector cut-off current	ICBO	-	-	100	nA	VCB= 30V
Emitter cut-off current	IEBO	-	-	100	nA	VEB= 10V
DC current gain 1	hFE 1	4k	-	-	-	VCE= 5V, IC= 1mA
DC current gain 2	hFE 2	10k	-	-	-	VCE= 5V, IC= 10mA
DC current gain 3	hFE 3	18k	-	-	-	VCE= 5V, IC= 100mA
Collector-emitter saturation voltage	VCE(sat)	-	-	1	V	IC= 100mA, IB= 100uA
Transition frequency	fT	-	200	-	MHz	VCE= 5V, IE= -10mA
Collector output capacitance	Cob	-	3.5	-	pF	VCB= 30V, 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.