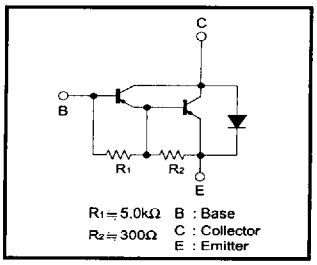
Power Transistor (120V, 6A)

2SD2615

●Features

1) Darlington connection for high DC current gain.
2) Built-in resistor between base and emitter.
3) Built-in damper diode.
4) Complements the 2SB1674.

●Circuit diagram



●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	120	V
Collector-emitter voltage	V_{CEO}	120	V
Emitter-base voltage	V_{EBO}	6	V
Collector current	I_C	6	A(DC)
		10	A(Pulse) *
Collector power dissipation	P_C	2	W
		30	W(Tc=25°C)
Junction temperature	Tj	150	°C
Storage temperature	Tstg	−55 − +150	°C

*Single pulse, Pw=100ms

●Packaging specifications and h_{FE}

Type	2SD2615
Package	TO-220FN
h_{FE}	2K~20K
Code	–
Basic ordering unit (pieces)	500

●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions	
Collector-base breakdown voltage	BV_{CBO}	120	–	–	V	I_C = 50μA	
Collector-emitter breakdown voltage	BV_{CEO}	120	–	–	V	I_C = 5mA	
Collector cutoff current	I_{CBO}	–	–	100	μA	V_{CB} = 120V	
Emitter cutoff current	I_{EBO}	–	–	3	mA	V_{EB} = 5V	
Collector-emitter saturation voltage	$V_{CE(sat)}$	–	–	1.5	V	I_C/I_B = 3A/6mA	*1
DC current transfer ratio	h_{FE}	2K	–	20K	–	V_{CE}/I_C= 3V/2A	*1
Transition frequency	f_T	–	40	–	MHz	V_{CE} = 5V , I_E = −0.2A , f = 10MHz	*2
Output capacitance	Cob	–	50	–	pF	V_{CB} = 10V , I_E = 0A , f = 1MHz	

*1 Measured using pulse current *2 Transition frequency of the device.