

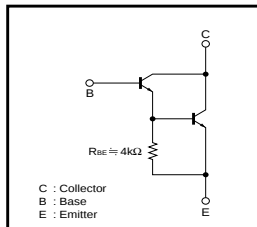
Power transistor (40V, 2A)

2SD1759 / 2SD1861

●Features

- 1) Darlington connection for high DC current gain.
- 2) Built-in 4k Ω resistor between base and emitter.
- 3) Complements the 2SB1183 / 2SB1239.

●Equivalent circuit



●Absolute maximum ratings (Ta=25°C)

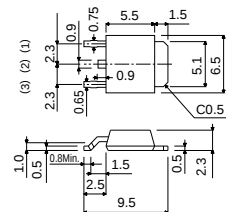
Parameter	Symbol	Limits	Unit
Collector-base voltage	V _{CB0}	40	V
Collector-emitter voltage	V _{CER}	40	V (R _{BE} =10k Ω)
Emitter-base voltage	V _{EB0}	5	V
Collector current	I _C	2 3	A(DC) A(Pulse) *1
Collector power dissipation	P _C	1 1 10	W W (T _C =25°C) W (T _C =25°C)
Junction temperature	T _J	150	°C
Storage temperature	T _{stg}	-55~+150	°C

*1 Single pulse P_{av}=10ms

*2 Printed circuit board 1.7mm thick, collector plating 1cm² or larger.

●External dimensions (Units : mm)

2SD1759

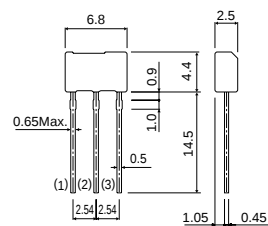


ROHM : CPT3

EIAJ : SC-63

- (1) Base
(2) Collector
(3) Emitter

2SD1861



ROHM : ATV

- (1) Emitter
(2) Collector
(3) Base

Taping specifications

●Packaging specifications and h_{FE}

Type	2SD1759	2SD1861
Package	CPT3	ATV
h _{FE}	1k~200k	1k~
Code	TL	TV2
Basic ordering unit (pieces)	2500	2500

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV _{CB0}	40	—	—	V	I _C =50 μ A
Collector-emitter breakdown voltage	BV _{CER}	40	—	—	V	I _C =1mA, R _{BE} =10k Ω
Emitter-base breakdown voltage	BV _{EB0}	5	—	—	V	I _E =50 μ A
Collector cutoff current	I _{CBO}	—	—	1	μ A	V _{CB} =24V
Emitter cutoff current	I _{EBO}	—	—	1	μ A	V _{EB} =4V
Collector-emitter saturation voltage	V _{CE(sat)}	—	—	1.5	V	I _C /I _E =0.6mA/1.2mA
DC current transfer ratio	h _{FE}	1000	—	20000	—	V _{CE} /I _C =3V/0.5A
Output capacitance	C _{ob}	—	11	—	pF	V _{CE} =10V, I _E =0A, f=1MHz

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