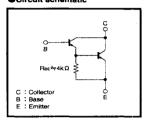
# Power Transistor (-40V, -2A)

# 2SB1183 / 2SB1239 / 2SB786F

- 1) Darlington connection for high DC current gain.
- 2) Built-in 4 kQ resistor between base and emitter.
- 3) Complements the 2SD1759/2SD1861/2SD947F.

### Circuit schematic



### ●Absolute maximum ratings (Ta=25℃)

Parameter		Symbol	Limits	Unit	
Collector-base voltage		Vcво	-40	V	
Collector-emitter voltage		VCER	40	V	
Emitter-base volta	age	Veso	5	ν	
		lc	2	A (DC)	
Collector current	Collector current		3	A (Pulse) *1	
	2SB1183		1	W	
	2581183		10	W (Tc=25℃)	
Collector power	2581239	Pc	1	W *2	
dissipation	2SB786F		1,2	. w	
	230/007		5	W(Tc=25°C)	
Junction temperature		Tj	150	r	
Storage temperature		Tstg	55~150	°C °C	

\*1 Sigle pulse Pw=10ms

\*2 Printed circuit board 1.7mm thick Packaging specifications and hre collector plating 1cm2 or larger

Type	2SB1183	2981239	2SB766F	
Package	CPT3	ATV	TO-126FP	
h⊨e	1k~200k	1k~-	1k~	
Code	TL .	T146	-	
Basic ordering unit (plecas)	2500	2500	1000	

## ●Electrical characteristics (Ta=25℃)

Parameter		Symbol	Min.	Тур.	Max.	Unit	Conditions
Collector-base breakdown voltage		BVcao	40			v_	Ic=-50 μ A
Collector-emitte	er breakdown voltage	BVCER	-40			V	Ic=-1mA , RBE=10kΩ
Emitter-base br	reakdown voltage	ВУєво	-5			V	te=-50 μ A
Collector cutoff current		lcao		-	1	μÃ	Vcs=-24V
Emitter cutoff current		leso			1	μA	Ves=-4V
Collector-emitter saturation voltage		VCE(set)			1.5	V	Ic/le=-0.6A/-1.2mA
DC current 2SB1183		hes	1000		20000	-	Vce/lc=-2V/-0.5A
transfer ratio	2SB1239,2SB786F	111-12	1000	14000		198.000	VCE/IC=-2V/-0.5A
Output capacitance		Cob		11		pF	Vce=-10V . IE=0A . f=1MHz

(96-126-B23)

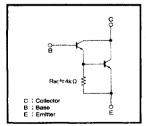
# Power Transistor (40V, 2A)

# 2SD1759 / 2SD1861 / 2SD947F

#### Features

- 1) Darlington connection for high DC current gain.
- 2) Built-in 4kΩ resistor between base and emitter.
- 3 ) Complements the 2SB1183/2SB1239/2SB786F.

### Circuit schematic



## ●Electrical characteristics (Ta=25℃)

### ●Absolute maximum ratings (Ta=25℃)

Parameter		Symbol	Limits	Unit	
Collector-base voltage		Vcвo	40	٧	
Collector-emitter	voltage	VCER	40	V (R <sub>BE</sub> =10kΩ)	
Emitter-base volt	age	Veso	5	V	
Collector current			2	A (DC)	
Collector current		lo lo	3	A (Pulse) *1	
	2SD1861		1	*2	
O-11			1	W.	
Collector power dissipation	2SD1759	Pc	10	W(Tc=25°C)	
	2SD947F		1.2	W	
		1	5	W(Tc=25℃)	
Junction temperature		Tj	150	Ĉ	
Storage temperature		Tstg	-55~150	ď	

\*1 Sigle pulse Pw=10ms ●Packaging specifications and hre \* 2 Printed circuit board 1 7mm thick

Type	2SD1759	2SD1861	2SD947F	
Package	CPT3	ATV	TO-126FP	
hee	1k~200k	1k~	1k~	
Code	TL	TV2	-	
Basic ordering unit (pieces)	2500	2500	1000	

Parameter		Symbol	Min.	Тур.	Max.	Unit	Conditions
Collector-base breakdown voltage		ВУсво	40			V	Ic=50 μ A
Collector-emitte	er breakdown voltage	ΒVσεο	40	-		V	Ic=1mA , ReE=10kΩ
Emitter-base b	reakdown voltage	ВУево	5	_		V	te=50 μ A
Collector cutoff current		Iceo			1	μА	Vce=24V
Emitter cutoff current		leso			1	μA	VEB=4V
Collector-emitt	er saturation voltage	VCE(set)			1.5	٧	Ic/Is==0.6mA/1.2mA
DC current 2SD1759			1000		20000		- Vce/lc=3V/0.5A
transfer ratio	2SD1861,2SD947F	hee	1000	_			VCE/IC=3V/U.5A
Output capacitance		Cob		11		pF.	Vcs=10V, I=0A, 1=1MHz

(94S-321-D23)