High-voltage Amplifier Transistor (−120V, −50mA)

2SA1579 / 2SA1514K

● **Features**

1) High breakdown voltage, (BV_{CEO}=−120V)
2) Complements the 2SC4102 / 2SC3906K.

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

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	−120	V
Collector-emitter voltage	V_{CEO}	−120	V
Emitter-base voltage	V_{EBO}	−5	V
Collector current	I_C	−50	mA
Collector power dissipation	P_C	0.2	W
Junction temperature	Tj	150	℃
Storage temperature	Tstg	−55~+150	℃

● **Packaging specifications and h_{FE}**

Type	2SA1579	2SA1514K
Package	UMT3	SMT3
h_{FE}	RS	RS
Marking	R✻	R✻
Code	T106	T146
Basic ordering unit (pieces)	3000	3000

✻ Denotes h_{FE}

● **Electrical characteristics (Ta=25℃)**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	−120	—	—	V	I_C=−50 μA
Collector-emitter breakdown voltage	BV_{CEO}	−120	—	—	V	I_C=−1mA
Emitter-base breakdown voltage	BV_{EBO}	−5	—	—	V	I_E=−50 μA
Collector cutoff current	I_{CBO}	—	—	−0.5	μA	V_{CB}=−100V
Emitter cutoff current	I_{EBO}	—	—	−0.5	μA	V_{EB}=−4V
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	−0.5	V	I_C/I_B=−10mA/−1mA
DC current transfer ratio	h_{FE}	180	—	560	—	V_{CE}=−6V, I_C=−2mA
Transition frequency	f_T	—	140	—	MHz	V_{CE}=−12V, I_E=2mA, f=30MHz
Output capacitance	Cob	—	3.2	—	pF	V_{CB}=−12V, I_E=0A, f=1MHz

(96-92-A41)

High-voltage Amplifier Transistor (120V, 50mA)

2SC4102 / 2SC3906K

● **Features**

1) High breakdown voltage, (BV_{CEO}=120V)
2) Complements the 2SA1579 / 2SA1514K.

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

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	120	V
Collector-emitter voltage	V_{CEO}	120	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	50	mA
Collector power dissipation	P_C	0.2	W
Junction temperature	Tj	150	℃
Storage temperature	Tstg	−55~+150	℃

● **Packaging specifications and h_{FE}**

Type	2SC4102	2SC3906K
Package	UMT3	SMT3
h_{FE}	RS	RS
Marking	T✻	T✻
Code	T106	T146
Basic ordering unit (pieces)	3000	3000

✻ Denotes h_{FE}

● **Electrical characteristics (Ta=25℃)**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	120	—	—	V	I_C=50 μA
Collector-emitter breakdown voltage	BV_{CEO}	120	—	—	V	I_C=1mA
Emitter-base breakdown voltage	BV_{EBO}	5	—	—	V	I_E=50 μA
Collector cutoff current	I_{CBO}	—	—	0.5	μA	V_{CB}=100V
Emitter cutoff current	I_{EBO}	—	—	0.5	μA	V_{EB}=4V
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	0.5	V	I_C/I_B=10mA/1mA
DC current transfer ratio	h_{FE}	180	—	560	—	V_{CE}=6V, I_C=2mA
Transition frequency	f_T	—	140	—	MHz	V_{CE}=12V, I_E=−2mA, f=100MHz
Output capacitance	Cob	—	2.5	—	pF	V_{CB}=12V, I_E=0A, f=1MHz

(96-170-C41)