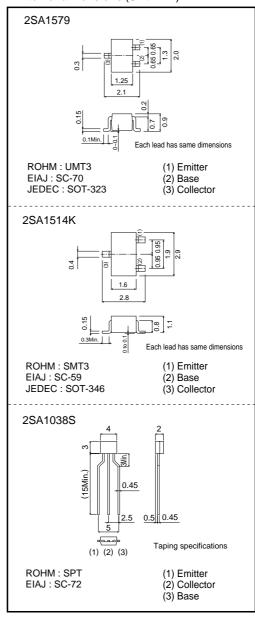
High-voltage Amplifier Transistor (–120V, –50mA)

2SA1579 / 2SA1514K / 2SA1038S

Features

- 1) High breakdown voltage. (BVcEo = -120V)
- 2) Complements the 2SC4102 / 2SC3906K / 2SC2389S.

●External dimensions (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

Parameter		Symbol	Limits	Unit	
Collector-base voltage		Vсво	-120	V	
Collector-emitter voltage		Vceo	-120	V	
Emitter-base voltage		VEBO	-5	V	
Collector current		Ic	-50	mA	
Collector power dissipation	2SA1579 / 2SA1514K	Pc	0.2	W	
	2SA1038S	PC	0.3		
Junction temperature		Tj	150	°C	
Storage temperature		Tstg	-55 to +150	°C	

●Packaging specifications and hfe

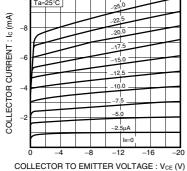
Туре	2SA1579	2SA1514K	2SA1038S
Package	UMT3	SMT3	SPT
hfE	RS	RS	RS
Marking	R*	R*	-
Code	T106	T146	TP
Basic ordering unit (pieces)	3000	3000	5000

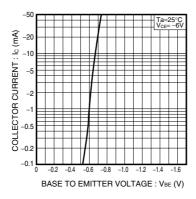
^{*}Denotes hre

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Collector-base breakdown voltage	ВУсво	-120	_	-	V	Ic= -50μA
Collector-emitter breakdown voltage	BVceo	-120	_	_	V	Ic=-1mA
Emitter-base breakdown voltage	ВVево	-5	_	-	V	Iε= −50μA
Collector cutoff current	Ісво	_	_	-0.5	μΑ	Vcb= -100V
Emitter cutoff current	ІЕВО	_	_	-0.5	μΑ	V _{EB} = -4V
Collector-emitter saturation voltage	VCE(sat)	_	_	-0.5	V	Ic/I _B = -10mA/-1mA
DC current transfer ratio	hfe	180	_	560	_	Vce= -6V, Ic= -2mA
Transition frequency	f⊤	_	140	_	MHz	Vce= -12V, Ie=2mA, f=100MHz
Output capacitance	Cob	_	3.2	_	pF	Vсв= −12V, I∈=0A, f=1MHz

•Electrical characteristic curves





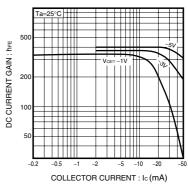


Fig.1 Ground emitter output characteristics Fig.2 Ground emitter propagation characteristics

Fig.3 DC current gain vs. collector current

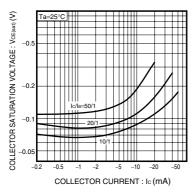


Fig.4 Collector-Emitter saturation voltage vs. collector current

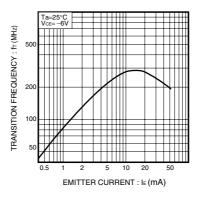


Fig.5 Transition frequency vs. emitter current

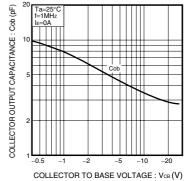


Fig.6 Collector output capacitance vs. collector-base voltage

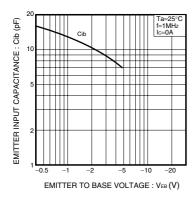


Fig.7 Emitter input capacitance vs. emitter-base voltage



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