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

2SA1579 / 2SA1514K / 2SA1038S

●Features

1) High breakdown voltage. (BV_{CEO} = –120V)
2) Complements the 2SC4102 / 2SC3906K / 2SC2389S.

●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}	–5	V
Collector current		I_C	–50	mA
Collector power dissipation	2SA1579 / 2SA1514K	P_C	0.2	W
	2SA1038S		0.3	
Junction temperature		Tj	150	°C
Storage temperature		Tstg	–55~+150	°C

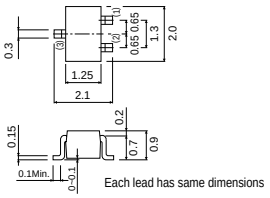
●Packaging specifications and h_{FE}

Type	2SA1579	2SA1514K	2SA1038S
Package	UMT3	SMT3	SPT
h_{FE}	RS	RS	RS
Marking	R*	R*	–
Code	T106	T146	TP
Basic ordering unit (pieces)	3000	3000	5000

*Denotes h_{FE}

●External dimensions (Units : mm)

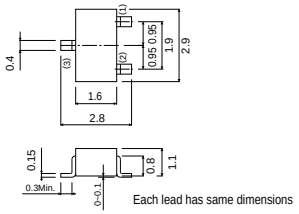
2SA1579



ROHM : UMT3
EIAJ : SC-70
JEDEC : SOT-323

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

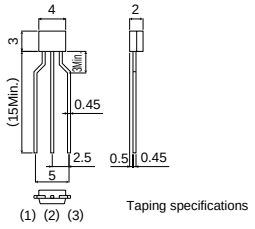
2SA1514K



ROHM : SMT3
EIAJ : SC-59
JEDEC : SOT-346

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

2SA1038S



ROHM : SPT
EIAJ : SC-72

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

●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=–1mA
Emitter-base breakdown voltage	BV_{EBO}	–5	–	–	V	I_E=–50μA
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